



# RECENT RESEARCHES ON SOCIAL SCIENCES

*Monographs and Studies of the Jagiellonian  
University - Institute of Public Affairs*

**EDITED BY**  
**ROMAN DORCZAK**  
**HASAN ARSLAN**  
**RAFAŁ MUSIALIK**

**Monographs and Studies of the Jagiellonian University**  
**Institute of Public Affairs**

---

# **Recent Researches On Social Sciences**

**Edited by**  
**Roman Dorczak**  
**Hasan Arslan**  
**Rafał Musialik**

---

**Kraków 2018**

The publication was financed from the funds of the Jagiellonian University Faculty  
of Management and Social Communication

**Reviewer:**

Dr. Aleksander Marcinkowski , Jagiellonian University

---

**Series editing:**

Chief Editor: dr hab. Ewa Bogacz-Wojtanowska, prof. UJ

Secretary: dr Wioleta Karna

**Scientific Council:**

prof. dr hab. Łukasz Sułkowski - Chairman

prof. dr hab. Aleksander Noworól

dr hab. Grzegorz Baran

dr hab. Zbysław Dobrowolski, prof. UJ

dr hab. Roman Dorczak

dr hab. Dariusz Grzybek

dr hab. Sławomir Magała

dr hab. Grzegorz Mazurkiewicz

prof. dr hab. Grażyna Praweńska-Skrzypek

prof. dr hab. Andrzej Szopa

---

**Publisher:**

Jagiellonian University Institute of Public Affairs

ul. prof. Łojasiewicza 4, 30-348 Kraków

tel. +48 12 664 55 44, fax + 48 12 644 58 59

e-mail: monografia\_isp@uj.edu.pl

www.isp.uj.edu.pl

ISBN: 978 - 83 - 65688 - 36 - 1

ISBN: 978 - 83 - 65688 - 37 - 8 (e-book)

© Copyright by the Institute of Public Affairs

Jagiellonian University

1<sup>st</sup> Edition, Kraków 2018

This publication or any of its fragments may not be reprinted without a written consent of the Publisher.

# Table of Contents

## Business Administration

*Emin Baki Adaş*

Political Identity, Institutional and Interpersonal Trust Among Middle Classes .....9

*Çiğdem Mine Yılmaz*

Housing Sales Contract with Prepayment in the form of a Contract with the Mortgage Housing  
Finance Contract .....17

*Assiye Aka, Mustafa Burak Keleş*

Gender Perception Of University Students: An Example Of Çanakkale Onsekiz Mart University .....23

*Eray Aktepe, Yavuz Güloğlu, Nur Belkayali*

What If Kastamonu Becomes A Metropolitan Municipality? Problems That Arise From The  
Participation Of Forest Villages In Metropolitan Municipalities .....33

*Kenan Alparslan, Nuri Akdoğan*

The Effects of Perceived Discrimination and Status on Self-Esteem: The Mediating Role of Identity  
Management Strategies .....39

*Alper Tunga Alkan*

Under Disciplinary Regulations, The Distribution of disciplinary action of Accounting Profession  
Members and Ranking By Cities: Case of Turkey (2008-2014) .....45

*Arı Kovancı*

The Fourth Industrial Revolution and Expectations Related to Workforce .....63

*Tuğrul Ayyıldız, Ahu Yazıcı Ayyıldız, Hüseyin Erhan Altun*

The Impact of Tourism Students' Personalities on Their Service Orientations .....71

*Bengü Hırlak, Gamze Ebru Çiftçi, Orhan Balıkçı*

The Effects of Organizational Climate on the Employee Performance: The Mediating Role of  
Employees' Creativity .....81

*Azem Duraku*

Public Framework Contracts in Kosovo, some study aspects..... 93

*Orhan Balıkçı, Özlem Yaşar Uğurlu*

The Investigation of Perception of Psychological Contract Breach and Organizational Silence  
Behaviours In The Context of Demographic Characteristics: Case of Kilis State Hospital .....99

*Kamil Bircan*

A Meta-Intuitive Analytical Approach to Facility Layout Problem..... 109

*Abdullah Enes Bolat, Fahrettin Eldemir*

Aircraft Fleet Management by Quantitative Methods .....117

*Rahman Temizkan, Duran Cankül, Gizem S. Sarıkaya*

Tourism Higher Education Experiences of a Leading Country: The Case of Turkey .....127



<i>Neriman Çelik, Aykut Bedük</i> The Effect Of The Servant Leadership Perceptions On Job Satisfaction .....	137
<i>Aliyenur Demiroğlu, Mehmet Özer Demir</i> Performance Measurement in Supply Chain Management .....	147
<i>Fatma Demircan Keskin, İnanç Kabasakal</i> Future Prospects on Maintenance Through Industry 4.0 Transformation .....	159
<i>Denizhan Demirkol, Cagla Seneler</i> Evaluation Of A Student Information System (Sis) In Terms Of User Emotions, Performance And Perceived Usability: A Pilot Study .....	167
<i>Çisel Ekiz Gökmen, Süleyman Girgin</i> An Evaluation of Privatization Effects on Employees: The Case of the Thermic Power Plant of Yatağan .....	173
<i>Osman Bayraktar</i> Evolution of Human Resources Management Practices in Japanese Companies .....	183
<i>Evrin Kabukcu</i> The Reflections of Industry 4.0 on the Textile & Fashion Business Processes .....	191
<i>Hatice Hale Bozkurt</i> The Contribution of Public Relations Studies to Corporate Reputation in Health Care Institutions: Patient Satisfaction Study Sample .....	199
<i>Hakan Hotunluoglu, Sercan Yavan</i> Impact of Local and General Elections on Public Expenditure Composition: A Province Based Analysis .....	209
<i>Seher A.Tezergil</i> Ethical Leadership On Employees Of Public Sector and An Investigation Of The Impact Of The Perception Of Trust In A Leader On Ethical Climate, with the Structural Equation Modelling .....	219
<i>Merve Kalayci, Sevgi Ozturk</i> Recreational Activity Habits of Undergraduate Students and Factors Affecting Their Habits: The Case of Kastamonu University Landscape Architecture Department Students .....	231
<i>Zeynep Arıkan</i> Imputed Rental Value Implementation for Real Property Income in Turkey .....	243
<i>Engin Cakir, Mehmet Can Doğaner</i> Application of Multi-Criteria Decision Making Approaches for Personnel Selection in A Private Hospital .....	247
<i>İrfan Yazıcıoğlu, Ersan Erol, Gizem Sultan Sarıkaya</i> The Impact of Organizational Commitment on Emotional Labor in Food and Beverage Establishment .....	259
<i>Guntekin Simsek, Azize Rana Arkadas</i> Impacts Of Qr Code And Rfid Technologies On E-Tourism Applications .....	269

*Erkan Bil, Tanju Gdk, Glay Keskin*

Study of Relationship Between Five Factor Personality Theory and Career Decisions: A Research on Gkeada Vocational School Students .....277

*Hseyin Ŗenkayas, Okan Ertosluk*

Risk Factors And Strategy Development In Fresh Fish Cold Chain Logistics ..... 289

*Hseyin Ŗenkayas, Emre Daniřman, Ŗkr Uzundağ*

Risk Management In Dangerous Substances Transportation On Railway .....297

*Seil Bal Tařtan*

Organizational Psychosocial Factors as Predictors of Work Exhaustion and Occupational Commitment: An Extension of the Job Demand-Control-Support Model .....305

*Hakan Yař*

An Assessment on the Environmental Protection Expenditures and Services of the Municipalities in Turkey .....317

## **Economics**

*Lukasz Ambroziak*

Changes in exports of the Central and Eastern European countries: An Analysis In Value Added Terms .....327

*Thomas Chatzigagios, Vasileios Pontios*

he tax policy of direct business taxes in the EU .....339

*E.Yasemin Bozdağloğlu, Mesut akır*

The Relationship Between Foreign Direct Investment, Export And Economic Growth From Turkey's Perspective .....347

*Rifat HOXHA, Hamdi HOTI*

Professional Training As A Condition For The Country's Economic Development– Kosovo .....355

*Břra Kutlu Karabıyık, Muhsin zdemir*

Strategic Importance of Enterprise Application Integration in E-Commerce Business .....361

*Gaetano Musella, Gennaro Punzo, Rosalia Castellano*

The Impact Of Spillover Effects And Socio-Economic Factors On Pro-Environmental Behaviours ...367

*Assiye Aka*

The Analysis Of Budasiddet (This Is Also Violence) Hashtag From The Point Of View Of Neoliberal Political Economy .....377

*Roland Sahatcija, Ariel Ora, Anxhela Ferhataj*

The Manager And Organizational Culture In Albania.....385

*Arı Kovancı*

Subcontract Work and A Survey on the Quality of Life of Female Workers Working through Subcontractors in the Public Health Sector .....393

<i>Ayşe Atılğan Yaşa, İ. Aytaç Kadioğlu</i> International Standards of Budget Transparency: An Evaluation of the Government Budget of Turkey .....	407
<i>Azem Duraku</i> Tax System in the Republic of Kosovo .....	415
<i>Hüseyin Şenkayas, Emre Danişman, Şükrü Uzundağ</i> Order Collection in Warehousing.....	427
<i>Umut Evlimoğlu, Ali Kemal Başbuğ</i> An Econometric Analysis For The Turkish Automotive Sector .....	435
<i>Oktay Kızılkaya, Ferhat Öztutuş</i> Political Risk and Inflation: Evidence from Turkey .....	447
<i>Gökhan Konat, Mehmet Temiz</i> The Cointegration Relationship Between Interest Rate And Exchange Rate: The Case of Turkey .....	457
<i>Hatice Küçükkaya, Yasemin Bozdağlıoğlu</i> Panel Data Analysis By Selected Variables Of Income Inequality In European Countries .....	465
<i>Ahmet Öztel, Ayhan Karakaş, Ahmet Aslan</i> Green Star Hotel Selection with Fuzzy TOPSIS Method: Case of Istanbul .....	473
<i>Hakan Bay</i> Advance Ruling Practice in Turkish Tax Law and Its Outcomes .....	487
<i>Hakan Bay</i> Tax-Related Aspect for Real Property Commerce in Turkey.....	493
<i>Zeynep Arıkan</i> Taxation of Athletes in Turkey .....	505
<b>International Relations</b>	
<i>Hamdi HOTI, Rifat HOXHA</i> Diaspora's Role İn Increasing Of Remittances And Their Impact On Kosovo's Economic Development .....	511
<i>Ceran Arslan Olcay</i> Economic Relations of Turkey and European Union within the Context of Revision of Customs Union .....	517
<i>Ali Bilgenoğlu</i> The Ideology of Muammar Al-Qaddafi and His Theory of New State Formation in Libya According to the Green Book .....	523
<i>Bariş Gürsoy</i> European Union's Regionalization Efforts As a Foreign Policy Instrument .....	529

<i>Aylin Konu, Nisa Secilmis,</i> Investigation Of Foreign Direct Investments In Global Competitive Dimension In Eu Countries .....	535
<i>Nurdan Kuşat</i> Look at Foreign Trade Relations of the Turkey - Russian Federation .....	545
<i>Besim Qeriqi</i> Kosovo Liberation Army in the International Discourse .....	555
<i>Nurdan Kuşat</i> Free Zones and Place in Foreign Trade of Turkey .....	561
<i>Bilge Senturk</i> Development of World Health Indicators in The Shade of Neoliberalism .....	571
<i>Suat Dönmez</i> International Community and Intervention Culture: Examining of a coalition military intervention against Libya in 2011 .....	581
<i>Yücel Bozdağlıoğlu, Hikmet Mengüaslan</i> Conflicting Roles of Turkey in the Middle East: Foreign Policy of Justice and Development Party and the Arab Spring .....	591
<b>Finance</b>	
<i>Durmus Sezer, Umut Tolga Gumus, Hatice Can Ozic</i> Financial Performance Evaluation In Turkish Banking Sector With Grey Relational Analysis Method .....	599
<i>Serkin Sahin</i> Alternative Financing Techniques for Entrepreneurs and Entrepreneurship Centers in Turkey .....	607
<i>Umut Tolga Gümüş, Çağrı Köroğlu, Ahmet Fatih Kiliç, Mustafa Şahin</i> Effect Of Financial Statement Rates On Active Profitability: A Working On Cement Firms In Ise .....	619
<i>Hacı Arif Tunçez, Aytaç Demiray, Alper Tunga Alkan</i> Impact Of Globalization On International Accounting Standards.....	625
<i>Utku Beyazıt, Gözde Cinar, Yesim Yurdakul, Aynur Butun Ayhan</i> An Examination of The Relationship Between Internet Addiction And Parenting Attitudes in Adolescents .....	629



# Political Identity, Institutional and Interpersonal Trust Among Middle Classes

Emin Baki Adaş

## Introduction

We are living in an age of uncertainties, eroding trust and heightened sense of risks. The changes in technology, economy and society have undermined our trust in institutions that are essential for the functioning of modern society. Hence, the erosion of general trust in the institutions has become the most salient aspects of the debate on “risk society” and late modernity recently. While it is true that increasing risks, threats, and the erosion of trust in society and institutions is affecting our social life, one of the most important challenge for social scientists is to research empirically how the trust and distrust is distributed across different societies and across various social groups within a society.

Indeed, comparative data and research show that trust is unevenly distributed among countries and within society among different social groups (Alesina and Ferrara, 2000; Hosking 2014). The researches indicate that level of economic and social development, nature of political regimes in society and characteristics of individuals such as class, education and racial, or ethnic identities have important consequences for the production of trust and distrust (Hosking, 2014; Sztompka, 1999; Hardin, 2002). In this context, this paper attempts to analyze institutional and general trust in Turkish society based on an empirical research on the member of traditional and new middle classes in İzmir. The paper argues that while the generalized trust has been markedly low in Turkey, the trust in social and state institutions is not evenly distributed among different social segments of Turkish society. The political identity and ideology appears as one of the most important factors in the production and maintenance of the level of trust in social and political institutions in Turkish society.

## Theoretical Perspectives on Trust

Trust is the most fundamental element of social system in modern societies. The way we relate to each other, trust or distrust in others, in institutions determines our social interaction (Hosking, 2014; Lewis and Weigert, 1985). Classical sociologists, such as Durkheim, Simmel and more recently Luhmann (1979), Putnam (1993) and so on, all have emphasized the importance of trust for the functioning of economy, politics and society in general (Hosking, 2014; Sztompka, 1999). As modern societies have become more and more complex, social cohesion and cooperation required generalized trust for interaction among fellow citizens in everyday life and for institutions in reproduction of the societal effects, i.e. the belief in the workings of institutions for the general public good as well as feeling of belonging to the same community.

For the maintenance and the reproduction of trust, there are four fundamental conditions: normative coherence, openness, accountability and stability (Sztompka 1999). Normative coherence refers to “the confluence of law, morality, and custom to provide a set of norms that facilitate interaction among individuals confidently. The opposite is normative incoherence, or what Durkheim called anomie, within which distrust is much more likely to be the default option in social interaction”. Another factor that reinforces the culture of trust among citizens is the degree of openness and transparency in society. It is important for citizens “to have information about how institutions and government function and to access to information and comment on their actions and decisions in public”. This is obviously related with the democratic norms and principles of freedom of speech and the right to obtain information from public institutions. In a society “where there is a lot of information kept secret or too complicated to understand, trust is likely to be withheld and rumors, gossip, and conspiracy theories will become abound, and people will be more prone to look for ‘enemies’.” Accountability, on other hand, refers to another important component of democratic societies whereby the public is ensured that if things go wrong, those responsible from this wrong-doing would be identified and be held “responsible and if possible obtained some redress for damage. This is a

guarantee that power will not be routinely abused and obligations will normally be respected” (Hosking 2014).

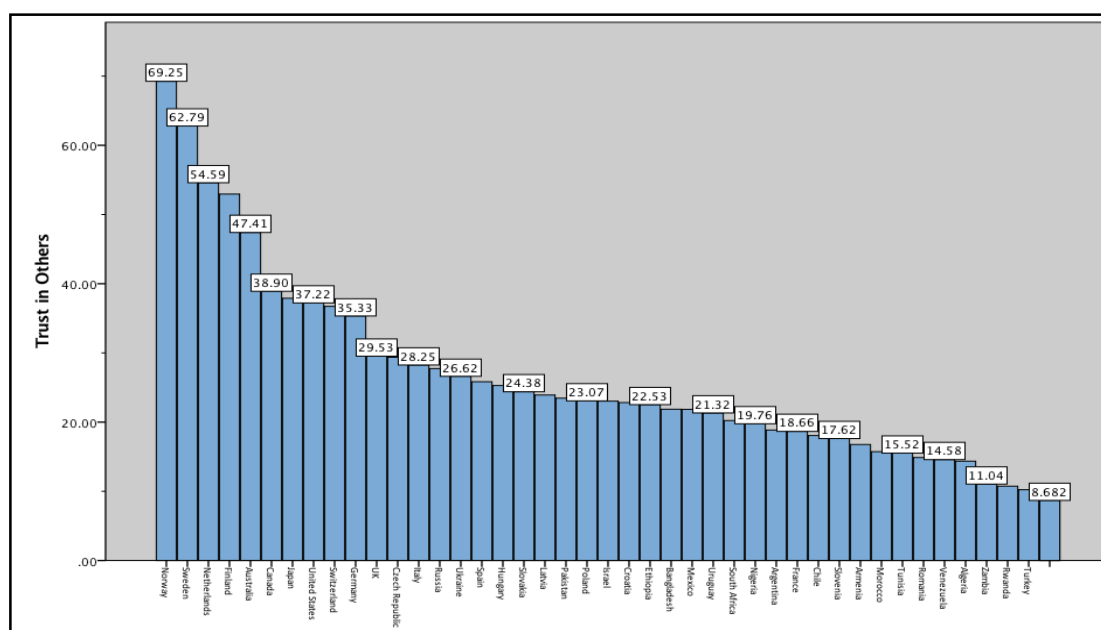
Many critical social theorists argue that today we live in an era of eroding trust and heightened sense of risks and uncertainties. Transformations in economy and society associated with neo-liberal global capitalism have undermined the belief in the ability of modern political and economic institutions to solve the problems facing modern societies (Stiglitz, 2002; Baumann 1999). Social theorists conceptualized contemporary societies as the advent of “risk society,” (Beck, 1992), “reflexive modernity” (Beck, Giddens and Lash, 1994), and/or “liquid modernity” (Baumann, 2000). These conceptualizations, in their own terms, define contemporary societies marked by heightened sense of risk, uncertainty, insecurity and widespread fear; hence the erosion of trust in modern political, economic and cultural institutions that were once enjoyed popular support and high legitimacy. Although we may live in an era of declining trust that effect all societies in various degrees, comparative data show that there are significant differences across societies and within each society among different social groups in terms of trust and distrust to others, and to political and social institutions. Societies with relatively low economic inequality and democratic political culture tend to still maintain high trust level. Conversely, countries with high economic inequality and authoritarian political cultures are marked by low-trust level. While in democratic societies generalized trust in the functioning of economy, politics and symbolic representations (cultural values and law) creates basis of social order, totalitarian societies create a cultural and social climate wherein the “socialization of distrust” becomes the basis of social order (Markova, 2012; Hosking 2014). In addition to this macro-level context, at the micro level, trust seems to be correlated with individual characteristics, including education, income and class position, and imagined or real sense of being discriminated in accessing to valued material and symbolic resources, i.e., belonging to a disadvantaged minority groups (Alesina and Ferrara, 2000). Against this theoretical backdrop, in the following pages, first, I would like to provide some macro level data to situate Turkey in a global context, and then I will present the research findings based on the case study of trust among middle classes in İzmir.

### **Method and Data**

The data in this study comes from both secondary and primary sources. In order to situate Turkey comparatively in a global context where Turkish society lies in the distribution of trust and social capital, World Value Surveys (1990-2015), World Bank data on economic inequality and Democracy Index compiled by Economist Intelligence Unit are utilized for comparative analysis to determine relational factors associated with trust level. Local level analysis is based on the case study of the members of middle classes in İzmir. The fieldwork in İzmir was carried out by a group of sociology students at İzmir Economy University in October and November 2017. The sample consisted of 271 respondents living in various districts of İzmir in order to capture various segments of middle class. For the difficulty of random sampling, the purposive sample method was used to select appropriate respondents for the study. Sample of middle classes was divided into two general segments: Traditional middle class which defined on the basis of the position within economic structure. Traditional middle class was composed of small scale shopkeepers, manufacturers and service sectors small business owners; new middle class was, on the other hand, defined as those group individuals who hold university degrees in various academic fields. They owe their position in the economic structure and society to high qualifications and credentials thanks to higher education. New middle classes included engineers, doctors, teachers, pharmacists, nurses, economists, lawyers, psychologists, engineers, low rank public servants etc. The data were collected through face-to-face interviews. The questionnaire consisted of multiple set of questions inquiring demographic profile, socio-economic background, nature of their work and various attitudinal and opinion questions on political, social and cultural values and orientations. The data was analyzed using SPSS 24. In addition to basic descriptive analysis, principal component analysis and chi-square statistical significance test were carried out in order to determine the interrelationship between the trust and other sociological factors.

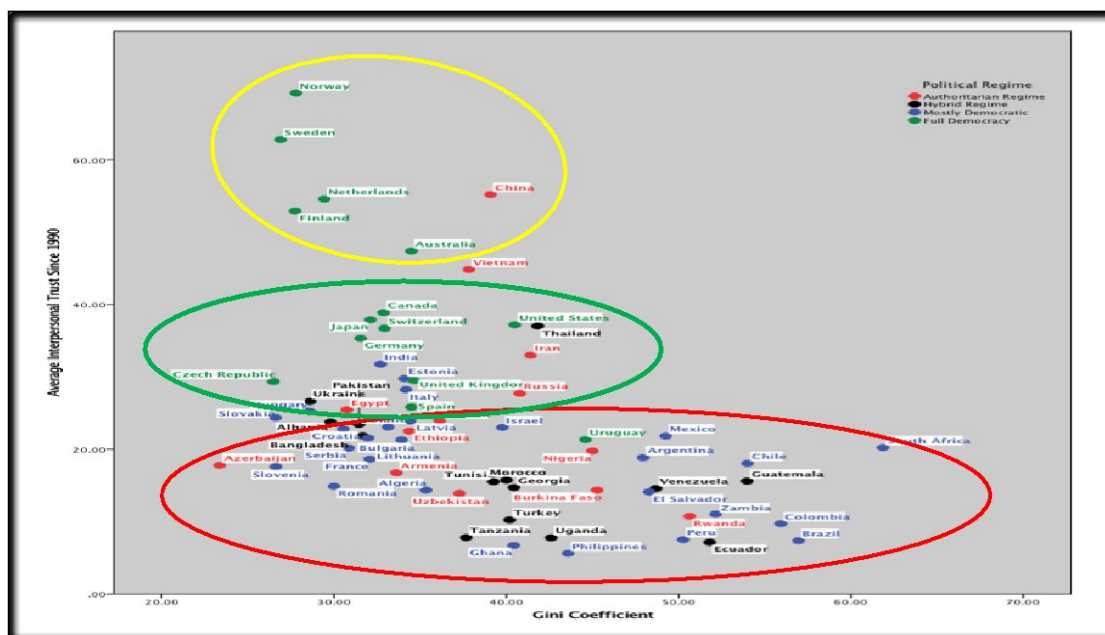
### Trust from a Comparative Perspective

Turkish case represents an 'exceptional case' in terms of the level of economic development and trust; while Turkey is ranked 18<sup>th</sup> largest economy, she has one of lowest trust score in the world. Level of general trust in institutions and among citizens is low; social and political polarization is very high. Comparative data show that impersonal trust, i.e., trust in others has consistently been low. The following graph ranks countries in terms of trust level based on the World Value Survey periodically carried out in several countries in the world. The data utilized in this graph represents average trust measured in different data collection rounds since 1990. At the top of list are Norway, Sweden and Netherlands with the trust level is above 50 percent while at the bottom of the list lies Turkey, Rwanda and Zambia with less 10 percent of the population reported that they trust others people. Turkey surprisingly ends up at the end of the list and appears to be in the league of very low-trust countries which highly economically underdeveloped countries.



Comparative data and studies show that trust level is strongly correlated with countries' level of economic development, income inequality and the nature of political regimes (Ortiz-Ospina and Roser, 2017; Alesina and Ferrara, 2000). For instance, Putnam's famous and controversial study drew an important association between social capital and democracy (1993). Obviously, one of the most important dimension of social capital is general social trust in population, which facilitates high level of cooperation and participation in civic organizations.





Source: The data is compiled from Economic Intelligence Unit (EIU) Democracy Index 2006-2016; World Value Survey (WVS) 1990-2015; World Bank Data on Gini Coefficient, available at <http://go.worldbank.org/9VCQW66LA0>; <http://ourworldindata.org>.

The scatter graph above shows interrelationship among interpersonal trust, economic inequality measured by Gini coefficient and the nature of political regime based on democracy index using 60 different factors in classifying countries. Green dots in the graph represents countries with full democracy; blue dots signify countries with flawed democracies; black ones are countries with hybrid regimes and red ones are authoritarian political regimes. Gini coefficient demonstrates income inequality within a country: the higher Gini score represents higher inequality. There is a negative correlation between trust and economic inequality, and positive correlation between trust and democracy. That is to say, lower the economic inequality, higher the trust level, and as the level of democracy increases, so does the interpersonal trust in that society. Yellow circle in the graph indicates low level of inequality with full democratic political regime leads to high trust among citizens. With exception of China, all countries such as Finland, Norway, Sweden, Netherlands, etc. in this group are developed countries with low inequality and demonstrating full democratic political culture. Similarly, green circle shows that countries in this group consists of full to flawed democracies with medium level inequality -Gini scoring less than 40- and medium level trust - proportion of trusting population is between 25-40 percent. The red circle, on the other hand, is composed of low trust countries with less than 20 percent interpersonal trust and mostly high economic inequality. Majority of the countries in this group are mostly hybrid and authoritarian political regimes. Turkey in this global map unfortunately falls in the red circle with hybrid political regime with high economic inequality (Gini scoring around 40) and low interpersonal trust (around 10 percent).

### Trust and Political Identity Among Middle Classes

Trust is not simply unevenly distributed among countries. There are also significant differences among different social groups within societies as well. Indeed, the data from İzmir show that even within the same class there is a sharp distinction in the level of trust in social and political institutions among the different segments of the middle classes. The following paragraphs present the determinants of trust among the middle classes to show that various dimensions of trust are associated with political ideology and class position of the individuals in İzmir. The data come from both male and female members of the middle class representing various segments. 60 percent of the participants are male and 40 percent of them are female. In terms of age groups, majority of participants (about 66 percent) were born after 1970 while the one third of the respondents were born in years between 1950-1970. Majority of the

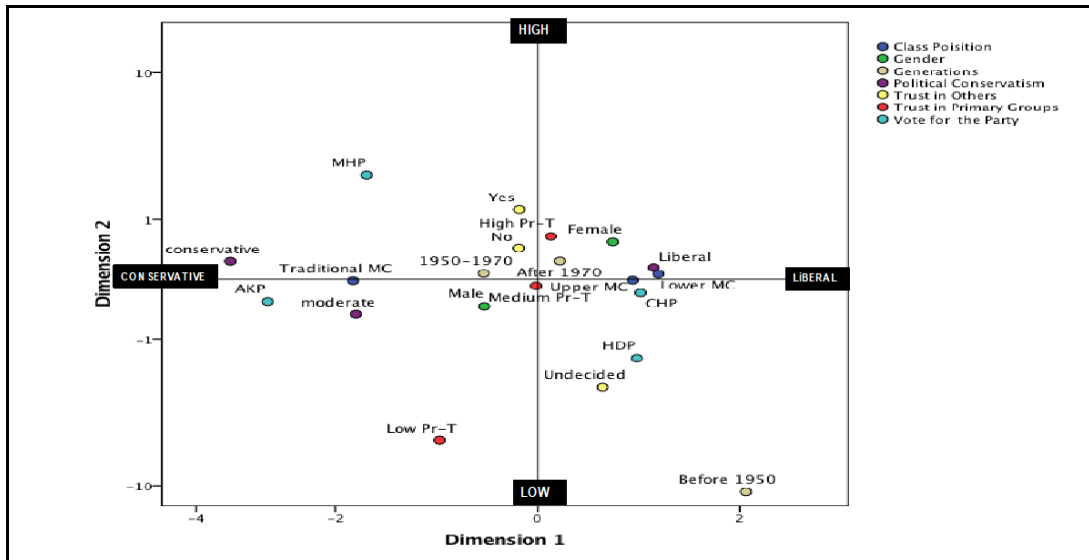
### Political Identity, Institutional and Interpersonal Trust Among Middle Classes

research participants (about 60) are highly educated holding university and post-graduate degrees, while about 30 percent have vocational school or high school degrees. Based on occupational prestige scores, 50 percent of the respondents can be defined as upper middle class consisting of physicians, engineers, academicians, lawyer and so on, 32 percent of the participants are member of traditional middle class such as barber, carpenters, small shopkeepers, owners of small cafes and restaurants and so on; and 17 percent of the participants are lower middle classes working in public and private sectors.

Similar to the country level data above, overall interpersonal and institutional trust among middle classes appears to be low in İzmir as well. However, there are some important differences in terms of interpersonal and institutional trust. Interpersonal trust among middle classes tends to decline as one moves from informal primary

		Political Conservatism		
		conservative	moderate	liberal
		%	%	%
<b>Trust in the State Institutions*</b>	Low	19.0	17.6	70.8
	Medium	28.6	45.6	24.2
	High	52.4	36.8	5.1
<b>Trust in Social Institutions*</b>	Low	9.5	26.5	77.5
	Medium	61.9	63.2	21.3
	High	28.6	10.3	1.1
<b>Trust in Primary Groups</b>	Low	14.3	5.8	4.4
	Medium	38.1	33.3	40.3
	High	47.6	60.9	55.2
<b>Trust in Others</b>	Yes	33.3	21.7	22.7
	No	57.1	52.2	56.4
	Undecided	9.5	26.1	21.0

**Graph 1. Principal Component Analysis: Associational factors with Interpersonal Trust**



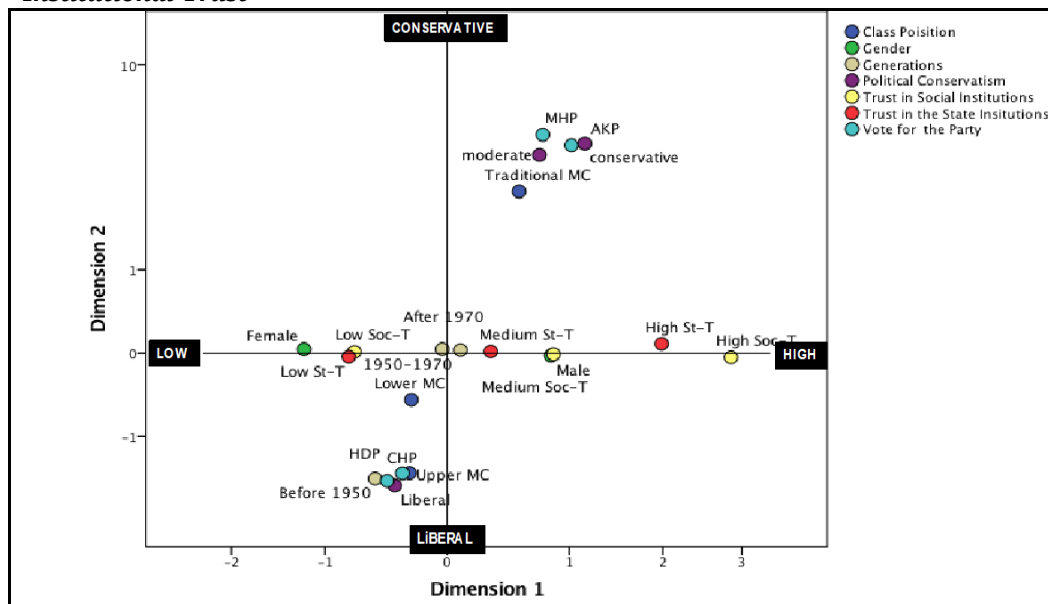
relations to formal secondary relations, or general trust in fellow citizens. In terms of trust in primary relations and secondary informal relations, there is no statistically

significant relationship between class position, gender, education and political ideology. Trust and distrust toward interpersonal relations seems to be statistically not significant, and hence there is no marked differentiations among the different segments of the middle class in İzmir.

The above graph represent the result of principal component analysis of several categorical variables such as gender, generations (age groups), class position, political ideology, political party votes, primary trust and trust in others. In this two-dimensional space, while the first dimension (Dimension 1) represents the political ideology and political party affiliations along conservative to liberal scale, the second dimension (Dimension 2) indicates the level of primary trust and trust in others

along high to low coordinates. The graph clearly indicates a sharp distinction between liberal and the conservatives. Majority of the traditional middle class are more likely to be politically conservative and moderate voting for ruling party, AKP and the nationalist party, MHP. Politically conservatives are typically male; were born between 1950-1970s. Whereas, upper and lower middle classes in İzmir appear to be politically liberal and more likely to support CHP and HDP. The female members of these classes appear to be highly liberal in their political views and majority of whom consists of young generations born after 1970s. However, old generations also seem to support liberal political parties. While the political identity appears to be rather important in distinguishing social groups in the social space, there is no marked difference in terms of primary and secondary trust among social groups. As can be clearly seen in the graph, the level of trust with other categories are pulled toward to the center which indicates no significant variance across social categories in terms of trust level. Even though not statistically significant, primary trust are relatively lower among politically conservative traditional middle classes compared to the liberal upper and lower middle classes as primary trust falls within boundary of low trust and conservative political space in the graph.

**Graph 2. Principal Component Analysis: Associational factors with Institutional Trust**



Although there is not much variance in terms of interpersonal trust among the different segments of middle classes, and hence reflecting low trust culture of Turkish society in general, there is a sharp polarization among different segments of middle classes in terms of institutional trust. As can be seen from the graph 2, the traditional middle classes with politically conservative and moderate leanings are located at high state and high social institutional trust space and majority of whom voted for AKP and MHP in the last general election. In contrast, liberal upper middle classes are positioned at low trust space of the graph and more likely to vote for CHP and HDP.

Hence, majority of politically conservative and nationalist individuals are more likely to express high confidence in state and social/public institutions. Gender play somehow a differential role in institutional support as conservative male middle classes with relatively low level of education are more likely to vote for AKP and MHP in İzmir and express high-level trust in state and social institutions. Medium level state and social institutional trust appear to be relatively higher among conservative middle classes than liberal upper middle classes. Politically liberal female upper and middle classes are more likely to have lower confidence in state and social institutions than liberal male members of middle classes. It should be noted that overall trust in various state and social institutions are low in

general among middle classes as the data from fieldwork reveal<sup>1</sup>. Nonetheless, the political ideology, party vote, gender and class position are important factor in determining trust in state and social institutions.

### **Concluding Remarks**

The 'strong state' and 'weak democratic tradition' have undermined historically the development of social capital and trust. Hence low-level trust continuously has reproduced low general public trust among citizens. Turkey consistently has been low-trust society marked by high inequality with an authoritarian political tendency. The basis of the social order in authoritarian societies tends to be 'the socialization of distrust' among social groups, wherein belief in conspiracy, rumors and suspicions become normative component of everyday culture, weakening social and political solidarity as expressed by common proverb in Turkey: "you should not trust even your father nowadays!".

Rapid social changes such rapid urbanization, low level of social integration, lack of social welfare support, poverty and social inequalities made citizens rely heavily on family or traditional forms of solidarities. Hence, reliance and trust on family and kinship ties and solidarity has remained relatively high but institutional trust in state and social institutions have been low and in a declining trend. However, trust in institutions and society is unevenly distributed among social groups, which is strongly correlated with political identity and class background among middle classes. Historically, political patronages have been important component of Turkish political culture in accessing and distribution of economic and symbolic resources. Hence political identity and ideology has been important in determining trust level among social groups in their attitudes toward political and social institutions. It seems that class position and educational level is significantly correlated with political ideology and political party support. Traditional and lower middle classes in İzmir is more likely to hold a conservative political worldview and vote for ruling AKP and nationalist MHP. Political ideology and party affiliation is, therefore, highly correlated with trust in state and social institutions.

### **References**

- Alesina, A., & E. La Ferrara. (2000). The determinants of trust. *National Bureau of Economic Research Working Paper No. 7621*, March 2000.
- Bauman, Z. (2000). *Liquid modernity*. Cambridge, UK: Polity Press.
- Beck, U. (1992) *Risk society: Towards a new modernity*. London: Sage.
- Beck, U., Giddens, A., & Lash, S. (1994). *Reflexive modernization: Politics, tradition and aesthetics in the modern social order*. Stanford, Calif: Stanford University Press.
- Ortiz-Ospina, E. & Roser, M. (2017). 'Trust'. Published online at OurWorldInData.org. Retrieved from: <https://ourworldindata.org/trust> [Online Resource]
- Giddens, A. (1999). *Runaway world: How globalization is reshaping our lives*. London: Profile Books.
- Hardin, R. (2002). *Trust and trustworthiness*, New York: Russell Sage.
- Hosking, G. 2014. *Trust: A History*. London: Oxford University Press.
- Marková, I. & Gillespie, A. (Eds). (2012), *Trust and conflict: Representation, culture and dialogue*, London: Routledge.
- Lewis, J. D., & Weigert, A. (1985). Trust as a social reality. *Social Forces*, 63(4), 967–985.
- Luhmann, N. (1979). *Trust and Power*. Chichester: John Wiley & Sons.
- Putnam R. (1993). *Making democracy work*. Princeton NJ: Princeton University Press.
- Seligman, A. B. (1987). *The Problem of trust*. New York: Princeton University Press,
- Stiglitz, J. 2002. *Globalization and its discontents*. London: Allen Lane.
- Sztompka, P. 1999. *Trust: A sociological theory*. New York: Cambridge University Press.
- Tilly, C. 2005. *Trust and rule*. New York: Cambridge University Press.

---

<sup>1</sup> Trust in state institutions ranges between 36 and 75 percent. The proportion of those who express low confidence in parliament is (53 %), in judiciary system (59 %), in politicians (74.5), in government (60 %), in police (45 %) and in the military (36 %). Those who express "no trust" in media, educational system, corporation and health system range between 49 and 70 percent, media and education has the lowest confidence.



# **Housing Sales Contract with Prepayment in the form of a Contract with the Mortgage Housing Finance Contract**

Cigdem Mine Yilmaz

## **1. Definition of Prepaid Home Sales Contract**

The Prepaid Home Sales Contract entered into Turkish Law "Law on the Protection of the Consumer" numbered 6502, which was accepted on 07.11.2013 and entered into force on 28.05.2014. In fact, prior to the TKHK No. 6502, Article 7 of the Law on the Protection of Consumers No. 4077 stated that under the heading "campaign sales", housing for real estate properties could be subject to a pre-paid sales contract. ( Makaracı, 2015, p. 241) In the Law No. 6502, regardless of whether or not the campaign was organized, the fourth part of the "Consumer Agreements" was organized in the fourth section of the book titled "Sale of prepaid housing" following housing financing. The pre-paid residential sales contract between 40-46 Articles is defined in the 40th article as "The contract of the consumer is to pay the sale price of a residential property in advance in cash or in installments and the seller to undertake the transfer or delivery of the real estate after the full or partial payment of the price. In the pre-paid housing sales contract, the parties have the right to pay with the consumer, in cash or in installments, while the seller is obliged to transfer the ownership of the property to the consumer together with the construction of the contract. The provisions to be applied even if the housing is paid in advance or in installments, even if the delivery is carried out at a later date, are again the articles 40-46 of the law on consumer protection which regulate this contract. (İnal, 2014,p. 106; Aslan, p. 526). The sale of pre-paid housing is mentioned in the 45th article titled "return without a contract", which may be in the form of a sales promise contract. With the sale promise contract, the ownership of the property can be decided after a certain period of time from the establishment of the contract and after a certain period of time. ( Çabri, p. 206. ) In the phrase in Article 40th 1st column, it is understood that the transfer or delivery of the house is postponed to an advanced date, in the 1st sentence of 41/I. the sale or sale of prepaid housing can be made in advance. In this case, a further registration or postponement is delayed. Essentially, the legislator hereby states that after the establishment of the floor easement, the floor easement can be transferred to the buyer, and the completion of the construction is not necessary. The seller will make the delivery after the completion of the dwelling. The mortgaged housing financing contract which can be regarded as a consumer contract in legal nature is borrowing, vedia, suigeneris contract type which contains some features of the proxy contracts and does not conform to any contract type in Turkey Obligation Law. Law on consumer protection, which received loans for housing financing. Art. 3, and housing financing contracts are also counted as consumer contracts. . ( Aydoğdu, p.257)The Housing Financing Agreement is for housing acquisitions; to extend credit to consumers, to lease houses to consumers through financial leasing, to provide loans to consumers under the guarantee of their own, and to provide loans for the purpose of refinancing these loans. In this type of contract, the home financing agency lends or hires. In other words, one of the sides of the curse or rent, the price of the consumer is the price of the act. In the housing financing agreement, the transfer or registration of the real estate and the establishment of the contract are independent of each other.

## **2.Elements of Sale of Prepaid Housing**

One of the elements of the prepaid housing sales contract is that the contract is "immovable for residential purposes". This element is stated in both law on consumer protection. Art. 40 and in e section of article 4 of the directive. In the Regulation, "all kinds of independent sections which are used for housing purposes subject to the Law on the Ownership of Houses dated 23/6/1965 and numbered 634, or which are presented for the use of consumers together with the dwelling, are defined as dwellings. However, not all kinds of immovables, law on consumer protectionAs stated in article 40/3,

a "building permit" may be the subject of a prepaid sale. It is stated that in case of such a contract made without acquiring the building license in its doctrine, sanction is "absolute invalidation".

The second of the elements of the contract is the payment of the price in advance or in installments. As stated in law on consumer protection in Article 40/1, the price is paid in whole or in part before the transfer of ownership. This statement does not include clarity about the minimum amount of immovable property to be paid. On the other hand, it is obvious that the whole price can be paid. In this case, against the possibility of the building not being able to be completed, the lawmaker has obliged the seller to issue "building completion insurance" with the 1st item of Article 42 of the Article or to "provide other guarantees and conditions determined by the Ministry". The contravene to the credit guarantee does not affect the validity of the contract. If this irregularity is not remedied, administrative penalty will be applied in the regulation. In my opinion, this provision will not serve to protect the consumers in large quantities of housing sales in quantity. When the regulations on law on consumer protection article 40, are taken into consideration, the easement of the floor is transferred without housing, and the buyer pays the price after this period. The third element of the contract is devolved of immovable property. Based on the legislative regulations, the seller is obliged to transfer the possession and ownership of the immovable property after the payment of the seller's price in whole or in part. With law on consumer protection article 44 a period for housing delivery has been brought. It is stated that the period of transfer or delivery will not exceed thirty-six months, and that the easement of the floor is registered in the name of the consumer, and that the transfer and delivery of the possession will also be considered in the transfer case.

### **3. Establishment and Provisions of the Convention**

#### **3.1 Establishment of the Contract**

The first step in establishing a pre-paid housing sales contract is to provide a consumer pre-notification form, just as it is in a housing financing agreement. In law on consumer protection article 40 section 2, this form has to be given at least one day before the contract is established. In addition to providing information on the scope of the informational obligation, the accountant must also be deemed to include the obligation to advise. As a matter of fact, it is considered that one of the parties has a professional position and that the information liability of this position will be increased when it is highly trusted with respect to its profession. For this reason, it should be accepted that the seller is also under an increased disclosure obligation by the home finance institution. Both must objectively provide all material and legal information relating to the interests of the consumer. The informing obligation must be fulfilled in accordance with article 33 and 40 of the regulation. Written condition is a condition of validity. Information should be made to the consumer himself or his legal representative. Even if the seller / home financing organizations have made this obligation verbally, it will be deemed that the institution has never fulfilled the obligation, since the information due must be made in writing in the form of "Pre-Contract Information Form". The breach of this obligation leads to the "culpa in contrahendo" responsibility as the Pre-Contract Information Form constitutes part of the legal validity form. In such a case, the consumer may claim damages arising from the contractual invalidity. Culpa in contrahendo can also be held responsible if the informing obligation is not exercised as it is, if it has affected the willingness to establish a contract. With the article 40 section 2, the informing form has to be given "at least one day in advance" from the establishment of the contract. However, for the first time in our field of housing financing, one day of informing was given in the 24th Article of Law No. 5582 dated 21.02.2007 "Amendment of Various Laws Related to the Housing Financing System" added to the law on consumer protection 10 / B No. 4077 which was in effect at that time. As a matter of fact, Article 10 / B of Law no. indicates "The contract signed before a working day following the presentation of the Pre-Contract Information Form to the consumer is invalid". The criticism of the doctrine and the conclusion of the applications were changed to "housing finance institutions have to give a pre-contract information form containing the conditions of the consumer housing financing contract a reasonable time before the contract is established" in Article 33 of Law No. 6502.

Again in article 10/B section 2, the contract concluded without conforming to this period was considered to be invalid. However, in the case of the violation of the "informing obligation" as in the case that the construction permit in 40 / III is not observed in the pre-paid housing sales contract, only administrative fines can be applied according to law on consumer protection article 77 / III. This, however, is not compatible with the law in order to protect the consumer.

### 3.2. Shape of Contract

The law on consumer protection, which regulates the Form of the Prepaid Housing Sales Contract, mentions that in Article 41, the sale of the house is registered in the title deed registry, and the promise of the sale is made in the form of a notary. It is thought that the registration of the sale of housing is related to the execution phase of the contract and the lawmaker unfortunately misses this point. Another issue that may actually lead to a dispute is that the sale contract is made in the deed and the proprietorship and the ownership are transferred. (Makaracı, p. 249) In this case the price will start to be paid after the transfer of ownership. This provision is not compatible with the land registry legislation if it is interpreted as the sale could be made but not to be registered in the title. Establishment of the pre-paid immovable sale promise contract by arrangement in the notary public, Articles 60 and 89 of the Notary Law are consistent with Article 237 of the Turkish Code of Obligations and Civil Code 706. The sanction of not obeying the form does not provide certainty. Namely; In practice, the land registry offices do not have a formal sale contract unless they also have a request for registration. In this case only "promissory sale of real estate" can be done in the notary public as a contract. (Çabri, p.206) If the case, what will be the validity of the "pre-paid housing sales contract" made outside the land register offices? Regulating shape condition. 41 / I c. in 2 states that "Otherwise, the seller will not later argue the invalidity of the contract to be against the consumer" in the face of this statement, while it should be a definite nullity, If the consumer does not propose, he will have real estate sales contracts contrary to what is valid. Article 7 of the Regulation states that the contract must be made in a clear, plain, readable format with a size of at least twelve pints, and a mandatory content must be given to the consumer with a mandatory content. In accordance with the law on consumer protection article 41 / II, the seller will not be able to ask the consumer to make any payment or issue a deed document. According to some authors in doctrin, the statement on the law on consumer protection article 4 / V, "If the form is not observed, these securities will be ineffective for the consumer" is also valid in terms of prepaid housing sales contract. . (Gümüş, s. 257) The contrary writers state that it is not possible to enforce the judgment because the legislator has not made an arrangement in this direction. (Makaracı, s. 252) On the grounds that the law does not conform to the law on consumer protection article 77 / I, it is stated that only the buyer can prove its invalidity. The housing financing agreement is invalid if not written in accordance with the law on consumer protection article 32 / II. The regulation that consumers can not argue against the contrary is intended for the purpose of consumer protection and does not differ from the prepaid housing sales contract.

### 3.3. Right to Renege on a Contract

Article 43 of the Law No. 6502 regulates the "right to withdraw" for consumer protection purposes. In the first sentence of the article, the consumer has been given the right to withdraw without any justification and without penal terms within fourteen days. The notification has not been subject to the relevant provisions of the law. However, in the 8th Article of the Regulation on the right of withdrawal, it is stipulated that "the notification of the use of the right of withdrawal should be directed to the seller through notary public offices within this period". Again with Article 43 of the Law, the seller is obliged to inform the buyer of the right to withdraw. The burden of proof that the buyer informed is also loaded to the seller. Despite this obligation to the seller, the sanction of not being informed has not been arranged. If the pre-paid housing sale contract is made with the affiliated loan contract special arrangements have been made with as well as article 43, section 2 and with article 8 of the directive. By law, if the immovable is acquired partially or wholly by affiliated credit, the entry into force of the contract is delayed until the end of the right to withdraw. It is thought that this provision aims to



remove the consumer's concern about the continuity of responsibility towards the credit establishment in the event of the consumer's surrender after the payment of the seller's price. . ( Makaracı, p. 255)

It is stipulated in the regulation and the law that the housing financing agency can not claim costs under any name during the period in which the right of withdrawal can be used. However, in the case of the consumer using the right to withdraw, there is a strange conclusion that, in the expression of Article 43 / III, which regulates the seller to return any kind of document that puts the obligation of the seller and the consumer into debt, the "selling price" If the right of withdrawal is used, it is also obligatory for the seller to notify the establishment of the relevant housing finance immediately. On the housing financing contract, the consumer does not have such a right.

### **3.3. Delivery of Housing**

Article 44 of the law on consumer protection the transfer or delivery period for the sale of prepaid housing can not exceed thirty-six months from the date of the contract. It shall be deemed to have been transferred and delivered in the case of the transfer of the possession with the registration of the easement to the title deed registry in the name of the consumer ". In the first sentence of this judgment, it appears that the sale of pre-paid housing is not different from the transfer and title registration of your possession. However, the act of condominium or the completion of the house together with the conqueror of the floor easement tapestry should be separated from each other. The actions of the seller on the solo ownership / floor easement tapestry are different from each other regarding the completion of the dwelling by the consumer unit. ( Özmen&Hamamcıoğlu, p. 52) Namely; If the seller can not make the possession of the immovable even though the seller has done the registration on the behalf of the consumer, the seller will not claim that the debt arising from the sale of the immovable is fully realized by showing the official seal in the deposit. Even more important, it can not be said that the seller does not fulfill the obligations of the law on consumer protection article 44 in case the floor easement is transferred to the consumer, the actual delivery is made but the building permission document can not be obtained. In the light of these criticisms, Article 44 must be understood as "subject to corrective interpretation" in the sale of prepaid housing and the delivery period can not exceed thirty-six months from the contract date. ( Özmen&Hamamcıoğlu, p. 58) This period may be shortened by the requirement of the proportional representation of Law No. 6502, but it can not be extended since it is against the consumer.

## **4. Consumer's Covenant Rotation**

### **4.1. Causes and Procedures of Rotation**

In No 6502 law on consumer protection article 45/I, c. 1 "From the date of contract to prepayment house sale, consumers for twenty-four months have the right to return without a justification without any justification ..." The first sentence has been granted the "right to arbitrary return" without any consent of the consumer. However, there are opinions in the doctrine that "the right to arbitrary return" should not be recognized if it is a transfer or registration of the consumer's possession. ( Özmen&Hamamcıoğlu, p.85; Gümüş, p. 272.) However, in the smallest economic crisis or speculation of investors who think that the expected profitability does not exist, and the construction sector will be crushed. The second item of the same article is "If the seller does not fulfill his obligations at all or as required, he can not demand any price from the consumer." Consumers shall not be entitled to any compensation in the event that the consumer is unable to make prepaid payments due to his or her continued loss of profits or because the seller has not accepted the proposal to place a sales contract in a hireable condition in place of the contract. The conditions and consequences of "returning at justified reasons" are mentioned in this context. As it is said in the first sentence, "If obligations are not exercised at all or as required" the right to revert proffered to the consumer is based on the Code of Obligations. This result is already inevitable because the contract lends it to both sides. The second sentence states, in case of he Consumer's death, falling into a situation where they can not make prepayments because they are permanently deprived of earnings, it is seen as a "justifiable reason" for the seller not to accept the proposal to put the sales contract in a hireable condition in place of the

contractor. ( Özmen&Hamamcioğlu, s. 94 vd. ) It has been accepted that the Consumer can return without consent in case of "selling more than one consumer of a dwelling" with the last paragraph of Article 2 of the Regulation on the Amendment of the Regulation on Prepaid Home Sales dated 11.03.2017. It is also accepted that if there is a project change related to housing with Article 10 of the directive, the consumer can return without a contract. However, in this latter case, ie in the case of a project change, if the change is due to legal necessity or force majeure the right to make a deduction up to two percent of the contract price is granted to the seller with costs like tax, charge etc. In my opinion, in a battle aimed at protecting the consumer, even though the coercive source, the protection of the consumer against the traders like the construction companies specialized in the field does not conform to the spirit of the law. The use of the right of rotation has not been connected in any way to the TKHK. However, in Article 9 of the directive, it is stated that the right of return shall be used through a notary public. The law on consumer protection article 32, which regulates the Housing Financing Agreement, does not allow the consumer to arbitrarily return. According to paragraph II of Article 35, if a loan is used, it is stated that the consumer can use one of the elective rights because the house is not delivered at all or as it is. If the consumer uses the right to return without a contract, the seller and the housing financing agency are jointly responsible.

#### **4.2. Consequences of Withdrawal**

There are also a number of consequences of withdrawal in Article 45 which regulates the withdrawal of consumers from their contracts. . However, these results need to be examined according to the arbitrary or justification of the return. However the lawmaker says that "In case of return without a contract the seller; fees for tax, duties and similar legal obligations arising from the sale or sale promise of the dwelling, as well as two percent of the contract price for the first three months from the date of the contract, four percent for three to six months, six percent for six to twelve months, for twenty-four months, up to eight percent of compensation may be requested " in the 45th article. This provision is subject to narrowing interpretation even if the possession of the immovable is transferred or registered. Even though the seller does fulfill his obligations on the seller, this amount which can be claimed from the consumer in case the consumer still returns without a contract constitutes a kind of return penalty. ( Özmen&Hamamcioğlu, p. 92) . Where the seller does not transfer or register the consumer, reciprocal acts must be returned depending on the use of the right to return. Essentially, this obligation stems from the obligation to return the enrichment based on the end cause, which lies in the spirit of the law. ( Özmen&Hamamcioğlu, p. 87). There is no clarity in law on consumer protection whether consumers who use the arbitrary withdrawal right can claim interest for the price paid. However, according to Ozmen, Turkey Obligations Act, which regulates the sale of prepaid installments of Article 269 section II. "The buyer may require that the part of the payments he has made that exceeds the withdrawal amount is given to him with his return" may also be applied here. ( Özmen&Hamamcioğlu,p.87) It is unthinkable that the lawmaker, who has the right to demand a return penalty in the event of arbitrary return, wants to prohibit the willingness of the beneficiary consumer who has paid it. However both has the same practical end result.

A special arrangement has been made with the third paragraph of Article 45 section 3, except the case of the lawmakers' acts. This provision shall be given back to the consumer within the maximum of one hundred and eighty days from the date of receipt of the notification of return of the seller to the seller. The consumer will return his / her acquisitions within ten days from the date the seller returned all kinds of documents that put him or her in debt.

#### **Conclusion**

The pre-paid housing sales contract is also set in the Law on consumer protection as it is a consumer contract, such as a housing financing contract. Both contracts have common and different aspects. The housing financing contract is primarily for housing for consumers or renting a house through financial leasing or providing loans under the guarantee of the house. In other words, with a housing financing agreement, a credit agreement is being established to acquire housing, not housing. A pre-paid housing sales contract is a typical sales contract that includes immovable property and debt. Both contracts

specifically regulated the obligation to inform consumers in order to protect the consumer, and the written contract was established as valid. The right to withdraw from the housing financing agreement, which is not recognized as a consumer, has been recognized as an "arbitrary" consumer for prepaid home sales. In the event that the immovable is acquired through linked credit, the right of withdrawal is only enforced at the end of the period, provided that the credit institution providing the housing financing is bound by the contract. This influences the housing finance contract of the prepaid housing sales contract. Both contracts need to be developed and should be changed in line with criticism of practice and doctrine.

## References

- Aslan, İ.Y. ( 2015). *Consumer Law, Tüketici Hukuku*, Bursa: Ekin Basım Yayın Dağıtım.
- Çabri, S. ( 2015). 6502 Housing Sales Contract with Pre-Payment in Accordance with the Law on the Protection of the Numbered Consumer, *6502 Sayılı Tüketicinin Korunması Hakkında Kanun Uyarınca Ön Ödemeli Konut Satış Sözleşmesi*, Sektörel Bazda Tüketici Hukuku Ve Uygulamaları, s. 205-240, Ankara: Bilge Yayınevi.
- Gümüş, M. A. (2014 ) . 6502 Numbered Consumer Law Commentary, Volume I, Article 1-46, *6502 Sayılı Tüketici Kanunu Şerhi, Cilt I, Madde 1-46*, İstanbul: Vedat Yayınevi.
- İnal, T. ( 2014 ) . *Consumer Law, Tüketici Hukuku*, Ankara: Seçkin Yayıncılık.
- Makaracı, A. ( 2015 ). *6502 Sale of Prepaid Housing in Accordance with the Law on the Protection of the Numbered Consumer, 6502 Sayılı Tüketicinin Korunması Hakkında Kanun Uyarınca Ön Ödemeli Konut Satış*, Yeni Tüketici Hukuku Konferansı, ( Makaleler –Tartışmalar ) , İstanbul, 239-259.
- Özmen E.S.&Hamamcıoğlu G.V. ( 2016 ). *6502 Housing Sales Contract with Pre-Payment in Accordance with the Law on the Protection of the Numbered Consumer 6502 Sayılı Tüketicinin Korunması Hakkında Kanun Uyarınca Ön Ödemeli Konut Satış Sözleşmesi*, İstanbul: On İki Levha Yayınevi.

# Gender Perception Of University Students: An Example Of canakkale Onsekiz Mart University

Assiye Aka, Mustafa Burak Keles

## 1.Introduction

Even if the gender perception varies widely within different cultures and societies; it reflects a universal reality in which women are subject to some common distinctions due to the role they are placed in. This reality seems to go on for a long time in the social structures in which various features of persistent and patriarchal thought is embedded in. With the awareness of this situation, this research tries to determine what the gender perceptions of the students in the higher education institutions are, and by this way, it tries to unearth whether higher education plays a decisive role in this distinction or not. In doing so, the research attributes to the fundamental views of cultural and liberal feminism that approaches women as individuals and as subjects. In the following, the gender-feminism relationship will be the first to take place and the basic arguments of the seven components of liberal and cultural feminism will be given forth, and afterwards the data obtained from the field study will be underlined.

### 1.1. Gender-feminism

Sex refers to the socio-cultural completeness of women and men, the way in which societies distinguish women and men from each other, and the social roles societies give to them both. The distinction between sex and gender has been used to deal with the general tendency of the secondary position of women under the provision of menbased on women's anatomies. In a way, women and the bodies of women have been and are still held responsible for their secondary status in society. 'Gender is a matter of culture, points to the social classification of men and women as masculine and feminine' (Bhasin, 2003, p. 1-2).

When the difference between sex and gender is to be drawn to the extreme in a logical manner, it is suggested that there is a fundamental discontinuity between biological sex and culturally constructed genders. For now, even if we assume there are two stable genders, this does not mean that the construction of 'men' will be specific to masculine bodies, and that women will also only give interpretations to feminine bodies (Butler, 2010, p. 50-51).

Feminism advocates the mobility of women in various social roles and functions. It is a modernist movement which stands for women to participate equally with men in all areas of modern life and stands up against the social constraints that prevent them from becoming 'free' individuals of the modern world, and to fight against the chains of tradition. For women individually, feminism refers to questioning the general, admirable, established 'perfect feminine' ideal, and leaving behind the mainstream status of women in society for the individual independence, freedom, and self-discovery spirit in which modern ideas were created (Durakbaşı 2002, p. 53).

Feminist theory has now and then tended to refer to a time before what some people call 'patriarchal', a time of an origin, a starting point idea that makes possible an imaginary perspective which will prove the history of subordinating of women is contingent. The topics as were there pre-patriarchal cultures, were they matriarch or matrilineal, was there a beginning of a patriarchy and therefore, whether the end will certainly come to the fore have been the subjects of the debates (Butler, 2010, p. 91).

In the period of 3-5 thousand years after the agrarian revolution, the woman has retreated to the second-class position and the "man is superior than woman" opinion has been placed permanently in the social subconsciousness. The masculinization of potency not only left the women deprived of social rights but also caused the sexual life of women to be restricted to strict rules as well. The male dominated order had to control the sexual life of the society. Because the baseline motivation that kept patriarchy standing still was that the woman being alienated from her own body (Caner, 2004, p. 41).

The political assumption that a universal basis for feminism must be found and that it must be found with a cross-cultural identity is often accompanied by the idea that the subordination of women

takes a singular form that can easily be distinguished in the universal or hegemonic structure of patriarchal or male domination. Countless criticisms have been made in recent years because the universal concept of patriarchy cannot account for gender-based oppression in the concrete cultural context. Various concrete cultural contexts in the theories that are based on the universal concept of patriarchy were applied only to find and to show 'examples' of the universal principle that has been conjectured from the very beginning (Butler, 2010, p. 46).

According to Beauvoir, gender does not cause social sex, and gender should not be considered to represent or express gender. On the contrary, factually sex is unchanging, gender is acquired; however, gender is a variable cultural construct of sex, and the possibilities of countless and open cultural meaning that a biological sex is instrumental. Beauvoir's theory was reaching to conclusions which seemed radical and which she had not foreseen. For example, if sex and gender are fundamentally separate from each other, it is not possible to arrive at the result that a particular gender will become a certain gender; in other words, it is not necessary for men to interpret masculine bodies, as "the woman should not be the cultural construct of the feminine bodies" (Butler, 2010, p. 191).

Nevertheless, sex is largely a biological data, and social gender is the socially constructed pattern of femininity and masculinity are the basis for feminist notion. Exactly what it is the relationship between sex and gender is still controversial. The reason for this is the hardship of determining to what extent biological sex differences affect gender stereotypes and how our thoughts about sexuality structure our biology (Ramazanoglu, 1998, p. 90).

## 1.2. Liberal feminism

The liberal individualism and equality principles have influenced the birth of the First Wave Feminism. The fundamental paradigm of the idea of enlightenment constitutes the idea that the entire universe is governed by simple and mathematical rules. In other words, the image that sets the period of enlightenment from the end of the 17th century to the end of the 18th century is the paradigm of Sir Isaac Newton's simple and rational rules of the universe. According to this paradigm, anything that does not function in accordance with the mind and the mathematical rules of mechanics is considered as insufficient, secondary, real outlandish, unnamed. According to liberal male thinkers, the characteristics of the man is 'mechanical'; the woman belongs to the alienated secondary category. In this context, human (man) has been seen as superior in reason and has been argued that rationality has the right to govern all other aspects of the truth. That is, rational beings - men - have the right to guide the reason to those who are intellectually deficient - women, non-human beings and to the world (Donovan, 2009, p. 17-19). According to liberal understanding, each person is different; the ability of individuals to develop individually and differently in the infinite variety of these differences is possible if they are realized as equal opportunities (Mitchel, 1998, p. 44). In general, all feminists are struggling for women to have the rights as men have. Because women were imprisoned in the house from the patriarchal / patrimonial period even in the age of enlightenment and even after that. Women who were confined to the house were naturally dominated by the male authority (İlter, 2014, p. 15-16).

The liberal feminist theory sees the state as a potential neutral arbiter without its own ideology. Liberal Feminism acknowledges that state is dominated by men and claims that the state and its institutions are generated by the male domination. Men, like women, are an interest or pressure group. The state is a field in which the groups compete or rival with each other, therefore it is an impartial arbiter amongst them. The methods of the state are legal, but the men have seized them (Hobson, 2010, p. 143). From this point of view, liberal feminist approaches have embraced strategies for greater access and influence (Gelb, 1989, Klein, 1987, Sawyer, 1993, Hobson, 2010, p. 143). Women's activities are an important dimension in liberal feminist theory of the state and an explanatory variable of the diversity among states in terms of women's voice / gender and their effects on gender inequality (Hobson, 2010, p. 143).

Liberal feminism put its basis on classical liberal thought which acknowledges that individuals must be free to develop their own abilities and to pursue their own interests. Liberal feminism, which focuses on how gender differences exist between men and women, can be explained by the effects of cultural assumptions on gender differences and social relations (Sevim, 2005, p. 56).

Liberal feminists acknowledge the society to be a fundamental organization and try to improve the rights and possibilities of women within this organization. They do not only argue against prejudices that obstruct women to have desires and expectations but also support equal rights. Liberal feminists adopt the idea of women being productive in their working lives as well. Some of the liberal feminists recognize the family as a social institution that requires child care and maternity leave for women who want to work. Others argue that freedom cannot be possible for women unless it evolves into a family-based form. Again, liberal feminists say that the woman and man's spirit and rational ability are the same. In other words, according to this approach women and men are ontologically identical (Sevim, 2005, p. 56).

Justice and equality are highly crucial for liberal feminists. So, they want three problems to be solved, these problems are as follows; legal discrimination (to abolish discrimination in law against women), institutional discrimination (qualification to be the basis for recruitment and removal of gender as a criterion), social discrimination (destroying interpersonal discriminatory behavior, abolishment of raising children to be male and female according to their gender and raising them as a human-person) (Sevim, 2005, p. 59).

Liberal feminism focuses on the removal of laws and legal practices which prevents women from effectively entering the public sphere of life, limit women's activities to domestic activities, and exile women to home and family specific areas. At this point women's rights was addressed in order to influence broad social and legal reforms. Entry of women into the public sphere and especially provision of their participation in economy and thus the desire to attain economic independence of women have been the main aim of liberal feminism (Alptekin, 2006, p. 18).

The first feminist wave was born in a liberal movement built on both individualism and equality principles together with thinkers dealing women's problems closely within feminist discourses (like John Stuart Mill) as well as with the first leading feminists (like Mary Wollstonecraft). Therefore, what is meant by classical feminism is actually classical liberal feminism. Feminists, who embraced the liberal view, have particularly focused on the elements that restrained women's equality in the nineteenth century, and have attributed women's backwardness to the social conditioning and discrimination that pushed them to ignorance. In the 20th century, liberal feminists pioneered by Betty Friedan not only showed that there was no difference between women and men, that women were not secondary people, and that they should have all the privileges and power of the privileged men of history. They emphasized that women should be given opportunities and should play a part and should be represented in higher decision-making bodies by claiming that women were not in decision making positions especially in political units, institutions and bodies (Ataman, 2009, p. 15).

### **1.3. Cultural feminism**

Cultural feminism goes beyond the rationality, atomistic individualism and legitimate position of the enlightened liberal feminism. Liberal feminism criticized the fact that the enlightened mind in the 18th and 19th centuries confined the woman under male authority as a wife and as a mother. In this direction, they demanded the principle of equality before the law, the right to vote for women, the recognition of equal opportunities for women in education and business, and the liberation of women from private space/ house. Cultural feminism focuses more on the irrational, intuitive and in general collective aspects of life, while acknowledging and supporting the importance of liberal feminism's equal rights visions and self-development for women. In this context, a world that emphasizes collective understanding, emotional ties and the concept of an organic or holistic life is suggested (Üzel, 2006, p.147).

On the basis of cultural feminism lies a matriarchal / matrimonial view. In connection with this point of view, it is believed that the domination of men brought destruction, tyranny and war. As in the case of matriarchy / matrimonialism, in which women have the administrative power, we have a civilization without ignorance, poverty and crime. In cultural feminism, matriarchy is seen as - with the expression of a cultural feminist Stanton - "the golden age of peace and abundance"; where patriarchy / patrimony is seen as "the source of tyranny, the source of wars and diseases" (Donovan, 2009, pp. 83-84).

Margaret Fuller, one of the first representatives of cultural feminism, defended the organic worldview in her book *Woman in the Nineteenth Century* (1845), focusing on the intuitive, emotional and spiritual aspects of knowledge, transcending beyond the rational and legal implications of liberal feminism. And she argued that beyond the rationality of the woman, there are intuitive sense of extraordinary feelings (Alptekin, 2006, p. 32). Fuller addressed the "developing self-confidence" phenomenon for women. She expresses that one of the ways of developing self-confidence is the estrangement from the world. By this way women would have the opportunity to discover their true and open nature. Women have an electrical intensity that men do not have. Electrical intensity refers to an intuitive and intellectual ability. This ability that women have is believed to be electrical in motion, intuitive at work and spiritual in education (Donovan, 2009, pp. 72-75). In other words, there are intuitive perceptions of women beyond the rationality, in recognizing the easily perceivable connections between people and all forms of life. She argues that society will radically change with the development of women themselves.

Cultural feminism stands against institutions such as religion, family, marriage. For example, Matild Joslyn Gage, a cultural feminist, acknowledged that "the first task of each individual is self-improvement, that the sacrifice and obedience taught by the Christian Church to women is lethal". According to Gage, the pressure on women stems from the Christian teaching and the Christian thought of creation. She even regards the Bible and Christian teaching as patriarchal products that can be discarded (Donovan, 2009, pp. 85-86). Cultural feminists separate themselves from liberal feminists in terms of their approach to family institutions as well. While liberal feminists respect the holiness of the private space; cultural feminists view the family institution as an obsolete system that restricts women and slows social evolution. According to cultural feminist view, the family is also obstructing social progress because it limits women's development. They oppose the family and marriage institution that restricts mothers as caretakers and cooks, suggesting that the mothers instinctively are neither a good nutritionist nor a talented babysitter. As an alternative, however, they recommend the professionalization of housework. With the proposal of these branches becoming a profession by giving education to women, looking after children and nutrition, women will be saved from being exploited 24 hours a day, and they will earn money for their retirement by working eight hours a day (Donovan, 2009, p. 100).

If we scrutinize the cultural feminist approach about the body, we see that this theory concentrates especially on women and the inner talents of women. It is believed that a woman has "an electric or magnetic nature" (as Fuller says), and that it naturally "harmonizes fierceelements". This theory, which focuses on the intuitive abilities of an optimist woman who is against war, is a vegetarian because she is against the murder of animals, suggests that women have a holistic view through these abilities. She has made a connection between the liberation of women and the improvement in the world (Donovan, 2009, p. 77). It has already been stated that cultural feminism does not just defend women's political, social, and economic freedom against the paternalistic / patriarchal system. According to them women should not be seen as a sexual commodity and should have the right to be in possession of their own body. Because the right to be in possession of one's own body is the basic condition of freedom. In this context, feminists like Elizabeth Cady Stanton supported the ideas of "voluntary motherhood" or "sexual abstinence" and argued that "birth control" and "abortion" should be left to the choice of women (Donovan, 2009, p. 107).

Cultural feminism has taken a step forward in sexual freedom and for the first time has approached homosexuality as a natural phenomenon. They advocated homosexual rights - especially lesbian rights- (John Katz, "The Unjust Treatment of Homesexuals," 1978: s 567. Alptekin, 2006, p. 34). Cultural feminists are supporters of the freedom of homosexual relations. They think that if these relations are prevented, the individual's development of free personality will be hampered (İlter, 2014, p. 24-25).

Below is a comparison of the seven main components from the cultural and liberal feminist perspective (education, culture, marriage, violence, political participation and work life and freedom).

**Table 1.** Liberal Feminism and Cultural Comparison of the Seven Components

	<b>Liberal feminism</b>	<b>Cultural feminism</b>
Education	Men and women should receive the same training as they have the same essence of the man. Education gives women of virtue and dignity. Women should get a good education. Women must complete the educational and intellectual growth. They should receive training to become a must have the same rights as women and men.	Patriarchal thought education influences. Women taking education should play an active role in the social structure. Othering situation cools women from education.
Culture	They defend intellectual culture. Cultural development should be provided with education	Woman Culture provides prestige. Women should create its own culture. Women determines the culture of the society be detected in a secondary position.
Marriage	Marriage reduces the dignity of women. Woman crushed in the institution of marriage. The presence of women in the institution of marriage, merges with that boy. Marriage makes women dependent on men.	It limits women's progress and obstacles



Violence	State protected women from violence and should take the necessary precautions.	The source of the violence is the patriarchal period. Violence is not specific to the nature of man
Political participation	Women should have the right to vote. Women should have a political and social rights. In democratic regimes certainly women should play an active role in political life.	Women in management positions they take place; ignorance, social structure is reached where there is poverty and crime. Women should be given the right to vote.
Work life	Women should take place in public space. Women should participate in working life. The patriarchal society, women in working life is pushed to a secondary position. It provides the full emancipation of women. They shall have equal rights with men	Women were confined to the private sphere. Women in business are constantly under pressure. Women's status is superior to that of men. Gender-based division of labor has affected women.
<b>Freedom</b>	<b>Be confined to the private sphere of women, prevents freedom. Public space is liberating women</b>	<b>Women's liberation means the world to say the improvement Is necessary to get rid of dependence on men for freedom and liberty in the area of family</b>

## 2. Methods

### 2.1. Subject of research

To determine the gender perceptions of university students.

## 2.2. Purpose of the research

The study had two objectives are interrelated. The first seven components of university students (education, culture, marriage, violence, political participation, working life and liberty) to determine the trend in terms of gender. Secondly, this means the production of masculine thoughts with higher education/ manufactured to be able to determine whether the failure is of a decisive role.

## 2.3. Population and sample

The study population (E) is the sum of Çanakkale Eighteen Mart University students studying in the faculty. The study sample (n), while 300 students from twelve schools in universities (150 girls and 150 boys) are.

## 2.4. Data collection tools

A questionnaire was administered as quantitative research techniques in research. Socio-demographic questions in the questionnaire before then to place the male and female students are given the perception of each other will allow them to liberal and cultural feminism seven components for open and closed-ended questions to be addressed in the light.

## 2.5. Data analysis techniques

The data is evaluated by forming the first stage of frequency tables, percent of the sample was obtained and the sample distributions are shown the general features unidirectional frequency distributions. In the second phase in Windows 7 with SPSS 17.0 Statistics programme, Independent Groups T test, Variance (ANOVA), Chi-square (Crosstabs) Independence, the data are evaluated using multiple regression and factor analysis.

## 2.6. Hypotheses

Hypothesis 1: Education determines determine the meaning of gender perception uploads/ does not determine

Hypothesis 2: Women's level of cultural development of the society simultaneously with the progress of development levels vary from culture to culture/ show does not

Hypothesis 3: Women's political citizenship rights vary according to culture / show does not

Hypothesis 4: Getting married woman of virtue and respectability saves / do not confer

Hypothesis 5: Feel free women feel their situation is determining the social structure itself is / is not.

Hypothesis 6: The cause of violence against women and the patriarchal structure itself is / is not

Hypothesis 7: Women's economic independence makes it easier for them to live as individuals / not easy

## 3. Findings

**Table 2.** Socio-Demographic Characteristics of Students

Variables	Frequency	Percent
Gender		
Girls	150	50,0
Men	150	50,0
Age		
21-23	180	60,0
Faculty		
Engineering and Architecture	127	23,8
Spent the Longest Living Location		53
Big city	102	34,0
Family Income Status	9	4
<b>1001-2000 Euro</b>	<b>88</b>	<b>29,3</b>

According to Table 2, 180 (% 60,0) students in the age range 21-23; 127 (%23,8) students in the Faculty of Engineering and Architecture; they spent most of the city life settlement grows 102 (% 34,0); the number of their own without any revenue 292 (%97,3); 223 (%74,4) unemployed student's mother; 88 (%30,3) student's father is self-employed occupations.

#### 4. Conclusions

The achievements of the women's movement in the late 1970s may have indicated that feminists were on the right path. The legalization of abortion, the passage of equal wage laws in some states, and the expansion of women's access to financial credit were all signs that the women's movement was working. In fact, the total number of bills passed by Congress with explicit attention to women's issues between 1970 and 1980 was more than the sum total of all the women-focused bills passed prior to that decade (Davis, 1999; Schmeichel 2011, p. 8-9). Additionally, in 1978, Equal Rights Amendment (ERA) advocates had gained a four year extension on the deadline to ratify the amendment and as a result, "the Equal Rights Amendment [made] feminism a regular part of the daily news and the general public's conversation" during this time period (Ryan, 1992, p. 111; Schmeichel 2011, p. 8-9).

Even if there competing feminisms all around the world and in Turkey, it can be argued that each feminist theory has a tendency to assume that women and men are exposed to discrimination at different rates for reasons arising from gender roles in public and private settings and that they end up taking a political stance to end this discrimination. For example, according to liberal feminists, whom theoretical arguments we have benefited from in this research, women need to have legal, economic, political and social rights just like men. According to them, these exercising rights will be possible if women are visible in the public sphere. By this way, women can really gain the virtue and prestige they deserve. At the same time, women can also be liberated in areas where men have the possession of.

Cultural feminists have argued that women's emancipation will culminate the world to be more bearable place and will lead to the level of prosperity to rise. In addition, they argued that by increasing the level of education women will take a more active role in the social structure and in this case women's dignity would increase. In addition to the advocates of liberal feminists on freedom, they stated that women's sexual freedom must also be in the possession of women. And for the first time ever they have defended the naturalness of homosexual and lesbian relations. Furthermore, cultural feminists have advocated matriarchy and argued that patriarchal society only leads to violence and oppression.

In the light of these baseline arguments, the basic hypothesis about the educational component developed in this study 'the meaning that is attributed to education determines the gender perception' has been tested. In other words, education has emerged as an important variable in determining the gender perceptions of the university students. Students think that there is positive correlation between the higher education level of women and the greater the degree of virtue and prestige of women. Thus, it was observed that both sexes recognized that education was effective in the formation of gender perceptions.

In terms of cultural component, the basic hypothesis of the study is that 'simultaneous progress of the cultural development level of the women and the social development level of the society differs from culture to culture'. In order to test this hypothesis, the question of "do you think that the level of cultural development of women is in simultaneous progress with the level of development of the society" was asked to students; the students think that the level of cultural development of the women and the level of development of the society are in simultaneous progress.

The basic hypothesis in terms of political constituent is "women's political citizenship rights differ according to cultures" expression. The hypothesis on the political composition of the study is supported by whether women parliamentarians exist sufficiently or not. The majority of the students who answered the question that women cannot be administrators gave their answers negatively. On the contrary, students think that women should be managers. Students also supported cultural feminists' ideal of a social state that if women are rulers, there will no crime or ignorance.

The basic hypothesis in terms of the marital component is "the meaning attached to marriage varies according to cultures" statement. The students answered positively to "will marriage bring a virtue and respect to woman" question. Referring to the researches in world and in Turkey it is observed

that women lean towards marriage. As the liberal feminists advocated in the study, students also supported the idea that "the institution of marriage has given the woman virtue and respect".

Many questions were asked in order to analyze gender perceptions in terms of individual / freedom constituent. These are as follows: "In my family, women are subjected to be meddled with their clothes", students were undecisive on this issue. "A woman should experience sexual intercourse after marriage", students strongly supported this idea. "Woman, a member of the family, should not go out at night with her friends", students are not strongly agreed on the expression of women not going out to be with her friends.

These expressions support the hypothesis that "the behavior of women is determined by the social structure". Because the social structure opposes the obstruction of women's freedom. Students did not agree with the expression of how the woman should behave is determined by society. "When a woman does not want to have sexual intercourse, she should be able to reject sexual relations", students strongly fell into line with this expression.

To the question as follows, according to you, is a woman free (family, work, society, etc.) and should young girls live separately from their families when they gain their economic independence; students often expressed impartiality. This question supports the hypothesis that the male (father) subject-individual (patriarchal structure) that determines the creation of the female subject- individual varies according to different cultures (Women not being able to decide/ cannot decide on their individual preferences in vital decisions about their own lives). It seems that the reason for this is the social / cultural structure's being the basic element of women's liberation.

The hypothesis that was developed about the component of violence was strongly disagreed by the students. To the expression as follows, during the flirting period, a slap is not considered violence and there is a time when the woman deserves violence; students had a strong attitude to disagree. In this sense, the base hypothesis supports the hypothesis that women should seek their rights in the course of violence. To the expression, if someone insults me, I can be forced to use violence to protect my honor; students did not agree strongly. To the expression, if the woman is subjected to violence from her partner, she will hide this situation from everybody; students showed attitude of disagreement. In the face of violence, students think that women should not remain silent.

In this question, university students did not support the basic hypothesis that violence can be applied by their relatives in situation and time that the woman deserves. On the contrary, they think women should seek their rights. Referring to the international researches in the world and in Turkey, it has been seen that women exposed to physical and sexual violence in every society. However, this rate differs in the developed countries (USA, UK, Sweden) and undeveloped countries (Africa, Southeast Asia). The rates of physical and sexual violence against women in Turkey is high. Men legitimize this violence for simple reasons, such as women not being able to listen and being unbearable. Law makers must make deterrent laws that will prevent violence in order to reduce violence against women. Laws must be before the social and cultural structure so that violence against women that is embedded in the social and cultural structure can be prevented. In this study, university students thought that it is imperative for women to defend their rights in the event of violence.

Hypotheses developed in terms of economic subject / working life components have been supported. In other words, taking part in the working life completely liberates the woman and she should take part in the working life opinion has been supported by the majority of the students. The students strongly disagreed with "it is normal for men to be given preference for promotion who work in the same status" statement. The discourse of liberal feminists has also been recognized by students. Students have ascribed different meanings to the expressions that nursing, secretarial, teaching are more suitable occupations for women and jobs such as military, police, electricity, civil engineering are more suitable for men. In the statement that men should work in professions with a high status, the students showed an attitude towards disagreement. Students were on the same page about the statement that women are discriminated against in business life. When asked whether taking part in working life liberates women completely or not, and whether taking part in working life means having equal rights with men or not, students agreed on the participation of women in the working life completely liberating the woman.

As a final word, while almost all the discourse on the seven components of liberal feminists were responsive by the students; the views of cultural feminists were partly accepted by the students. In addition, it can be said that higher education is partly regenerating patriarchalism, and partly in creating a trend towards a more egalitarian point of view.

## 5. References

- Alptekin, D. (2006). Feminism in the context of women's rights in third world countries (Unpublished master dissertation). Selçuk University, Turkey.
- Ataman, M. (2009). Feminism: alternative to traditional international relations theory beam approaches. *Journal of Alternative Policies*, 1(1).
- Bhasin, K. (2003). Gender (K. Ay, Trans.). İstanbul: Kadınlarla Dayanışma Vakfı Pub.
- Bourdieu, P. (2014). *Masculine domination* (B. Yılmaz, Trans.). Ankara: Bağlam Pub.
- Butler, J. (2010). *Gender trouble* (B. Ertür, Trans.). İstanbul: Metis Pub.
- Caner, E. (2004). *Soil and women*. İstanbul: Su Pub.
- Donovan, J. (1997). *Feminist theory* (A. Bora, Trans.). İstanbul: İletişim Pub.
- Durakbaşı, A. (2012). Halide edib Turkish modernization and feminism. İstanbul: İletişim Pub.
- Giddens, A (2008). *Sociology* (C. Gürsel, Trans.). İstanbul: Kırmızı Pub.
- Hobson, B. (2010). Women, gender and state policies. In T. Janoski, R. Alford, A. Hicks, M. A. Schwartz (Ed.), *Siyaset sosyolojisi*, (pp. 571-593). Ankara: Phoenix.
- İlyasoğlu, A., Akgökçe, N. (2001). *The right to an indigenous feminism*. İstanbul: Sel Pub.
- İlter, N. (2014). To discuss feminism, gender tensions over (Unpublished master dissertation). Mardin Artuklu University, Turkey.
- Keller, F. E. (2007). *Reflections on Gender and Science* (F. B. Aydar Trans.). İstanbul: Metis
- Mitchel, A. (1993). *Feminism mobile university* (Ş. Tekeli, Trans.). İstanbul: İletişim Pub.
- Ramazanoğlu, C. (1998). Feminism and oppression contradictions (M. Bayatlı, Trans.). İstanbul: Pencere Pub.
- Schmeichel, M. (2011). Feminism, neoliberalism, and social studies. *Theory & Research in Social Education*, 39:1, 6-3. DOI: 10.1080/00933104.2011.10473445
- Sevim, A. (2005). *Feminism*. İstanbul: İnsan Pub.
- Üzel, E. (2006). *Feminism and nature axis ecofeminism* (Unpublished master dissertation). Ankara University, Turkey.

# **What If Kastamonu Becomes A Metropolitan Municipality? Problems That Arise From The Participation Of Forest Villages In Metropolitan Municipalities**

Eray Aktepe, Yavuz Guloglu, Nur Belkayali

## **1. Introduction**

Through the globalization process, economic development policies and their interactions with local communities have brought about the reorganization of public administration and spatial politics in many countries around the world. Urban areas are seen as the new frontiers and the engines of social, economic, and environmental development. Redesigning local governments brings about significant changes in the context of space management, for example, when cities gain wider cross-border jurisdictions that include rural areas. Recent legal regulations in Turkey and policies that expand municipality boundaries into adjacent areas have been the driving force behind urban development and have been influential in the restructuring of rural areas. The most significant changes were a result of Law No. 6360, issued in 2012 which abolished the special provincial assemblies, villages, and large villages in 30 provinces, replacing them with municipalities. In the Ministry of Interior's 2017 Performance Program, studies on increasing the number of metropolitan cities and the studies on the applicability of the new metropolitan municipal model to the cities with populations of over 400 thousand are causing concern about the legal status of and service provision to the rural areas in the target cities. The most important rural place to be affected by such an arrangement is the Kastamonu province, which is home to the largest forest villages in Turkey. Any changes in service delivery or the legal status of forest villages will deeply affect Turkey's overall agricultural development, rural areas' population and management policies as well as provincial development strategy, provincial development plans and rural area policies of the Kastamonu province.

The aim of this study is to examine the possible scale of the statistical and managerial effects of the application of the new metropolitan municipal model on the forest villages located within provincial borders, like the Kastamonu province. With this new model, the protection of rural areas, which had been provided previously through law, would be left to urban expropriation, urbanization, and land management policies. In this context, this study focuses on Turkish spatial planning and policy changes that have been fostered by the influence of Law No. 6360 on the metropolitan municipality system. While the Turkish government has undergone huge domestic changes in the last twenty years, indisputably the most important change is the expansion of the metropolitan municipality borders and the abolition of villages in the municipalities.

The findings of the paper are based mainly on Metropolitan Law No. 6360, the resulting changes in the legal status of villages and forest villages, and the existence and legal status of forest villages in the Kastamonu province. Most of the existing literature on local politics and metropolitan municipality systems seeks to understand the intensification of the power of the central government over local governments and its effects. Specially, the status of forest villages after the amendment has not been clearly explored in the current literature. The main contribution of this study is the details about recent issues in Turkish urban politics in terms of the changes in legal status of forest villages, which may cause destruction of forests and violations of the rights of the villagers.

First, this paper will discuss the fundamental pillars and Turkey's new urban and regional policy orientations, which have been directed by Metropolitan Law No. 6360 over the last decade. Then, the paper will address how the changes in Turkish spatial planning affects the forest villages and discuss how the metropolitan municipality legal borders and service provision in the rural areas are changed. Finally, the study will assess the possible impacts of these policies on forest villages in the Kastamonu province.

## 2. The Status of Villages and The Effects of Law No. 6360 on Rural Cores

In recent years, significant changes in the context of legal, administrative, and local participation have led to metropolitan municipalities becoming the sole local governmental unit in 30 provinces in Turkey. In these provinces, metropolitan municipalities have become the only local government unit responsible for urban services related to settlements within their borders, including municipalities, special provincial administrations, villages, and forest villages. With this Law, the legal personality of these small local government units was abolished.

According to the arguments supporting the law, metropolises consist of a large city and many satellite towns surrounding it. Cities should not be considered to be only the urban centers. The central population together with the periphery is the basis of the metropolises. In this sense, metropolitan areas cover a large basin. A significant portion of international trade is directed toward metropolitan centers. The metropolitan areas, which are integrated in the global and regional networks, have a high transportation and communication network. Efficiency in services, provisions for zoning plan integrity, and prevention of the waste of resources are also cited as the reasons for this law (Çınar et al., 2013, p. 96).

Although Law No. 6360 has affected the scale and structure of many local government units profoundly, villages are the most affected units. The number of village administrations has shrunk from about 34,500 before the enactment of Law No. 6360 to 17,720 after implementation. As a result, the legal personality of 16,563 village administrations (including about 10,000 forest villages) were abolished. Considering that there were about 34,500 villages in Turkey, about 50% of them no longer have village status (Ögdül, 2013).

According to Article 7 of Village Law No. 442, the villages are legal entities that may have movable and immovable property. The Village Elder Council may, if it deems it necessary, purchase immovable properties within the boundaries of the village. On the other hand, according to Articles 9 and 12 of Law No. 442, the village settlement plan is adopted with the affirmation of the village council and the approval of the district administration. In addition, the Village Elder Council may decide to sell the land within the boundaries of the village at the current market value. However, after the adoption of Law No. 6360, these laws have lost their validity in the villages within the borders of the metropolitan municipality. Because villages were abolished and turned into neighborhoods, these areas have lost their legal ability to buy and sell immovable property.

Villages that turned into neighborhoods will not be able to benefit from the rights and privileges provided before Law No. 6360 because neighborhood administrations are not legal entities (Göküş and Alptürker, 2016, p. 73). Villages turned into neighborhoods cannot access credit, make legal transactions, or be parties in a court case. These new neighborhoods do not have their own budgets and, therefore, cannot have any assets (Gözler, 2007, p. 205). As a result, neighborhood governments cannot be expected to provide local public services.

The authority to make the zoning plans for village areas in the metropolitan municipalities was given to the municipalities. In other words, metropolitan municipalities have become the sole local government in 30 provinces in Turkey, responsible for providing public services to the entire province (Union of Municipalities of Turkey (TBB), 2018).

According to Article 4(d) of Law No. 4706 on "Evaluation of Immovable Goods to Treasury and Amended the Added Value Tax," issued in 2001, Treasury immovable property within an area of up to five thousand square meters of the settlement area of villages and outside the boundaries of municipalities and its adjacent areas, can be sold directly to property users at the current market value. However, since the villages in the boundaries of metropolitan municipalities have been abolished by Law No. 6360, the villagers who use the treasury land will not be able to exercise the purchasing rights mentioned in Law No. 4706.

According to Article 2 of Village Law No. 442, people that share common spaces, such as mosques, schools, pastures, and coppice forest, form a village. With Law No. 6360, it has become a matter of debate how the common spaces of villages, such as pasture, plateau, and coppice forest are used. In other words, the issue of authority and responsibility regarding the use of these areas has become a problematic issue.

Forest villages have been left out of the changes to some extent. It is envisaged that the forest villages within the limits of new metropolitan municipalities would protect their legal personality after the border expansion. However, with Law No. 6360, all the villages within the borders of the metropolitan municipalities have been transformed into neighborhoods without distinction. To continue the rights, responsibilities, and privileges granted previously to forest villagers under the law, an amendment has been made to Municipal Law No. 5393 (Article 12) in accordance with Article 16 of Law No. 6360. After the amendment, residents of these neighborhoods and other beneficiaries will be able to benefit from pasture, summer pasture, and winter quarters within the scope of the provisions of Law on Pastures No. 4342 (Çınar et al., 2013, p. 106).

Law No. 6360 protects the rights of people who live according to the forest legislation in the villages that were converted into neighborhoods, but it does not provide these protections to towns turned into neighborhoods (TBB, 2014, p. 4). Although Article 16 of Law No. 6360 states that forest villagers will continue to have their rights under the scope of the Pasture Law, the villagers have no authority over this immovable property since it is no longer the property of that village under Law No. 6360 (Mutlu, 2013, p. 11; İrdem, 2016, p. 164). Given the wide range of authority given to municipalities in terms of urban transformation, construction will increase gradually in the forested areas, pastures, summer pastures, and winter quarters within the village boundaries. In short, there is no legal validity, sanction, or credibility to ensure that the previous legal personality of the village and forest villages will be respected.

Article 10 of the European Charter of Local Self-Government states that local authorities shall be entitled to cooperate with other local authorities both within and outside of the state. To protect and to promote their common interests, local governments shall be allowed to participate in the international association of local authorities. According to Article 127 of the 1982 Constitution, local government associations can be established with the permission of the Council of Ministers. It is stated that local administrations can cooperate with each other with the aim of providing certain public services. Unions of Village Service Delivery (Köylere Hizmet Götürme Birliği) are also associations established for this purpose. These unions, which concentrate especially on meeting the needs of the villagers, have spread all over the country (Geray, 1999b, p. 33-35). Villages are able to be established Unions of Village Service Delivery to assist in the development of road, water, sewerage, and similar infrastructure facilities, except for the marketing of agricultural products (Article 18 of Law No. 5355). These unions were established by Law No. 5355 to help villages that are not able to effectively meet their own needs. These unions, which have been activated by KÖYDES projects in recent years, help to improve the infrastructure of villages, such as building village roads, repairing and maintaining of drinking water facilities, and maintaining and building new warehouses. Thanks to the KÖYDES project implemented by Unions of Village Service Delivery since 2005, positive developments were recorded in eliminating the infrastructure deficiencies of the villages, raising the living standard of the people living in the villages, socio-economic development of underdeveloped regions, and preventing migration to cities (Öğüt et al., 2008, p. 105). It is also possible to transfer appropriations from the ministry and other public institutions to these unions. The ministry and other central government agencies may allocate funds for services such as construction, maintenance, divided roads, electrification, village roads, drinking water, irrigation water, and sewage (Şengül, 2013, p. 75). However, with Law No. 6360, the legal personality of the local administrative unions, including Unions of Village Service Delivery have also been abolished. All kinds of movable and immovable goods, assets, and debts of the villages whose legal entities have been abolished with the Law No. 6360 have been transferred to the ministries, the metropolitan municipalities, or district municipalities. In other words, the immovable property that belonged to the villages and Unions of Village Service Delivery are no longer the common property of the villages.

### **3. How The Forest Villages of Kastamonu Province Could be Affected by Law No. 6360?**

In the Regulation on Performance Programs to be Prepared in Public Administrations, published in the Official Gazette dated 05.07.2008 and numbered 26927, a detailed version of the Ministry of Interior's 2017 Performance Program, prepared under the provisions of "The Public Administrations



Performance Programs are Open to the Public and Published on Internet Sites in January,” shows that Kastamonu may also become a metropolitan municipality in the coming period. The performance target table on pages 56 and 57 of the relevant program refers to the draft bill on the applicability of the metropolitan model to 51 provinces.

According to the Ministry of Interior’s 2017 Performance Program, commissions will be set up to conduct a modeling study for the draft law on the effective application of the metropolitan model to 51 provinces under the framework of the Local Government Reform Implementation Support Project (LAR III) (T.C. İçişleri Bakanlığı 2017 Yılı Performans Programı, 2017, p. 56-57).

**Table 1. Population of Kastamonu, 2016**

	<b>Total</b>
Turkey Total Population	79.814.871
Kastamonu Province Population	376.945
Kastamonu City/District Centers Population	145.754

\*Kastamonu Annual Activity Report 2016

According to the 2016 results of the Address-based Population Registration System announced by Turkstat, Kastamonu ranked 50th with 376.945 inhabitants. With such a large population, Kastamonu is targeted to be included in a metropolitan municipality administration.

**Table 2. Number of Forest Villages and their Populations in Some Cities in Turkey, 2016**

<b>Province</b>	<b>Number of Forest Villages</b>	<b>Population of Forest Villages</b>
Kastamonu	1035	131 987
Samsun	822	303 001
Balıkesir	820	334 680
Manisa	648	208 386
Bursa	591	232 272
Çorum	587	112 031
Tokat	574	125 695
Çanakkale	561	142 955
Sivas	561	67 694
İzmir	540	233 083
Kütahya	493	114 230

\* General Directorate of Forestry and Turkish Statistical Institute.

According to 2016 Forest Statistics provided by Turkstat, Kastamonu is in the first place with the greatest number of forest villages (1035) in Turkey. Considering that the population of Kastamonu is 376.945, about 35% of the total population of the province lives in forest villages. The population of villages and forest villages may not make up a significant portion of the total population of the metropolises where the population is concentrated in the city center. However, any change in the provincial, district, and village administrations will be felt at a significant level in all the provincial administrations where the population of the districts and villages is high as compared to the total population, like in Kastamonu.

**Table 3. Number of Villages and Forest Villages in Kastamonu Province, 2016**

	<b>Number of Forest Villages</b>	<b>Number of Villages</b>
<b>Kastamonu</b>	1.035	1.070
<b>Türkiye</b>	21.380	34.434

\* General Directorate of Forestry, Forestry Statistics, and Turkish Statistical Institute

About 60% of Kastamonu's land is covered in forest. There are 1070 villages in Kastamonu and 1035 with Forest Village status. In other words, 95% of the villages in Kastamonu are forest villages (Turkish Statistical Institute, 2016). As can be seen, forestry activities affect every aspect of Kastamonu people's lives. Due to the number of forest villages, the density of the population living in forest villages, and the supply of livelihoods from forest resources, any change in the province of Kastamonu would be felt at a significant level.

In accordance with the provisional Article 2 of the Law No. 5216, the legal entity of the villages was abolished and turned into a neighborhood. In the historical process, the population rates of villages, towns, districts, and city centers have changed greatly, reflecting migration from rural to urban areas in Turkey. As Ulusoy and Tekdere (2017) have highlighted, while approximately 76% of the total population lived in rural areas during in the early years of the Republic of Turkey, the ratio has fallen dramatically to around 8% today. With Law No. 6360, which was enacted as the "New Metropolitan Act" in 2012, the number of metropolitan cities has reached a total of 30. With this law, 84% of the population who lived within the boundaries of municipalities' adjacent areas across Turkey began to live in residential areas in the Metropolitan Municipality (Ulusoy and Tekdere, 2017, p. 444). The tendency of this metropolitanization to spread to settlements that have high rural populations and high rural activities will negatively affect the villages, towns, Special Provincial Administrations, and those living in these settlements.

#### **4. Conclusion and Discussion**

The end of the legal personality of villages does not coincide with the EU's "Subsidiarity" principle which is defined in Article 5 of the Treaty on European Union. The Subsidiarity principle states that local-related decisions need to be taken by the authority that is as close as possible to the localities; however, this practice removes the nearest governmental units and replaces them with metropolises.

The ending of the legal personality of about 10,000 forest villages and their transformation into neighborhoods of district municipalities do not coincide with Article 170 of the Constitution, titled "Protection of the forest peasantry" (Çağlar, 2014, p. 177). With Law No. 6360, the duties, powers, and responsibilities of villages have passed to the metropolitan municipalities. In this context, it is likely that public service expenditures will be increased in village areas. On the other hand, the villagers who are away from the metropolitan municipalities and its institutions will not receive efficient public services as compared with residents of the city center.

The sanitation tax was not collected and the water fees over 25% of the lowest rates were taken from city dwellers after the law was enacted in 2012; however, five years after the law, the sanitation tax and the water fees would be collected, as collecting in the city centers of metropolitan municipalities in 2018. On the other hand, the villages in Kastamonu, which will be under the responsibility of the metropolitan municipality, face the risk of opening to planning and development activities. There are concerns about the possibility of the loss of forests and the loss of the rights of the villagers over communal space if they are included in the municipal service boundaries (YAYED, 2012). The same concerns apply to Kastamonu.

Village administrations were local administration units with their own rights, privileges, and possibilities to use forests and resources due to their legal personality, but now they are deprived of legal, financial, and managerial rights and have become an add-on administrative unit of the metropolitan municipality with the passage of Law No. 6360. (Görgün and Yörür, 2017, p. 16). According to the Turkish authorities, although the villages, including the forest villages, were abolished

as legal institutions in metropolises with Law No. 6360, the rights and privileges of these villages will continue. However, this claim is not an in-situ assessment because the rights and privileges depend on the legal personality.

## References

- Act No. 6525 amending some Acts and Decrees having force of Law  
Article 2 of Village Law No. 442, Retrieved February 17, 2018 from <http://www.mevzuat.gov.tr/MevzuatMetin/1.3.442>.
- Article 18 of Law No. 5355, Retrieved February 17, 2018 from <http://www.tbb.gov.tr/belediyelerimiz/mahalli-idare-birlikleri/koylere-hizmet-goturme-birlikleri>
- Çağlar, Y. (2014), *Hukuksal Kırsaktaki Ormanlar Ve Ormancılık (Seçme Tartışmalar)*, Türkiye Barolar Birliği Yayınları: 209
- Çınar T., Duru, B., Çiner, C. U. and Zengin O., (2013) *Belediyenin Sınırları*, TODAİE, Ankara
- European Charter of Local Self-Government, Retrieved February 17, 2018 from <https://rm.coe.int/168007a088>
- Geray, C. (1999a) "İşlendirme Açısından Kırsal Gelişme Yöneltilerimiz", *AÜ Siyasal Bilgiler Fakültesi Dergisi*, 54/2, ss.61-99.
- Göküş, M. ve Alptürker, H. (2016). "6360 Sayılı Yasa İle Köy Yönetiminden Mahalle Yönetimine Geçiş Sonrası Etkin Hizmet Sunumuna İlişkin Muhtarların Görüşü: Silifke Köyleri Örneği" *Selçuk Üniversitesi Sosyal ve Teknik Araştırmalar Dergisi* Sayı: 11, 2016, ss. 67-86.
- Görgün, E. K. ve Yörür, N. (2017) "6360 Sayılı Büyükşehir Kanunu Sonrası Kırsal Alanları Yeniden Düşünmek- İzmir Örneği" *Aydın İktisat Fakültesi Dergisi*, 2 (1), 11-27.
- Gözler, K. (2007), *İdare Hukuku Dersleri*, Ekin Kitabevi, Bursa
- İçişleri Bakanlığı 2017 Yılı Performans Programı, Retrieved February 16, 2018 from [https://www.icisleri.gov.tr/kurumlar/icisleri.gov.tr/performans\\_prog/2017\\_perf\\_prog\\_yeni.pdf](https://www.icisleri.gov.tr/kurumlar/icisleri.gov.tr/performans_prog/2017_perf_prog_yeni.pdf)
- İrdem, İ. ve Mutlu, A, "6360 Sayılı Yasanın 'Kır-Kent' Kavramlarını Muğlaklaştırması Sorunu ve Olası Sonuçları", *KAYSEM* 10, 5-7 Mayıs 2016 İzmir, 159-176
- Mutlu, A. (2013). "6360 Sayılı Büyükşehir Belediye Yasası Yasada Kıra, Kırdan Yasaya Bakış", *Düşünce Dünyasında Türkiz Siyaset ve Kültür Dergisi*, Yıl:4, Sayı: 21, 2013
- Öğdül, H. "Kırsal Mekân Politikalarında Yeni Dönem" *Mimarlık Dergisi*, 371 Mayıs-Haziran 2013. Retrieved February 15, 2018 from <http://www.mimarlikdergisi.com/index.cfm?sayfa=mimarlik&DergiSayi=385&RecID=3153>
- Öğüt, A., Türker, N. and Öztoprak, A. A. (2008) "Kaymakamların İş Tatminine Köydes Projesinin Öngörülen Etkileri: Betimleyici Bir Çalışma", *Türk İdare Dergisi*, 460, s.105-120.
- Şengül, R. (2013) "Köylere Hizmet Götürme Birliklerinin İşlevselliği Üzerine Bir Alan Araştırması: Bartın Örneği", *Afyon Kocatepe Üniversitesi İİBF Dergisi* (C. XV, S. II, 2013)
- Ulusoy A. , Tekdere M., "Mali Yerelleşme ve Metropolleşme İkilemi", *Sosyal Bilimler Dergisi (The Journal of Social Science)*, pp.436-464, 2017
- Union of Municipalities of Turkey (2014). "6360 Sayılı On Dört İlde Büyükşehir Belediyesi ve Yirmi Yedi İlçe Kurulması İle Bazı Kanun Ve Kanun Hükmünde Kararnamelerde Değişiklik Yapılmasına Dair Kanuna İlişkin Rehber". Retrieved from [http://www.tbb.gov.tr/storage/userfiles/rehber\\_ve\\_bilgi\\_notlari/6360\\_torba\\_personel\\_rehber.pdf](http://www.tbb.gov.tr/storage/userfiles/rehber_ve_bilgi_notlari/6360_torba_personel_rehber.pdf)
- Union of Municipalities of Turkey, "Municipalities in Turkey" Retrieved February 15, 2018 from <http://www.tbb.gov.tr/en/local-authorities/municipalities-in-turkey/>
- YAYED, 2012, "Büyükşehir Tasarısı Hakkında Yayed Görüşü", Retrieved February 15, 2018 from <http://www.yayed.org/id261-yayed-gorusu/buyuksehir-tasarisi-hakkinda-yayedgorusu-11-ekim-2012.php>

# The Effects of Perceived Discrimination and Status on Self-Esteem: The Mediating Role of Identity Management Strategies

Kenan Alparslan, Nuri Akdogan

## 1. Introduction

The vast majority of psychology theories agree on the idea that people have a strong and prevalent need for self-esteem. The need for self-esteem have been discussed to explain various ways of behavior in various conceptual analyses and empirical studies since the book *Principles of Psychology* (1890) by William James up to publications of today. Considering that self-esteem is an essential need, the levels of self-esteem in disadvantaged or ethnic minority groups have become a subject of debate.

Most minority groups who are socio-economically and educationally disadvantaged are usually subjected to prejudices, stereotypes and discrimination. It is thought that these conditions will affect the self-esteem of members of minorities (Verkuyten, 1998). Additionally, the effects of prejudice and discrimination on self-esteem remain to be a subject of debate. Tajfel and Turner (1979) stated that the self-esteem levels of members of disadvantaged groups will decrease due to their position, but they will develop various reactions to protect or increase their self-esteem. Individuals adopt some strategies that manage identity to both gain a positive social identity and protect their self-esteem. This study proposes a model that shows how minority or disadvantaged group members protect or increase their self-esteem by utilizing the concept of *identity management strategies* (Blanz, Mummendey, Mielke, and Klink, 1998).

## 2. Self-Esteem

Self-esteem is described as the extent to which the individual likes, accepts and respects themselves. Self-esteem is a central element of psychological functionality. Accordingly, strong relationships may be found between self-esteem and various other variables including the general satisfaction from one's life (Crocker and Major, 1989).

The idea that personal identity and social identity are parts of the concept of self that define it on different levels (Tajfel and Turner, 1979) has accordingly inspired the idea that self-esteem should be categorized within itself (Luhtanen and Crocker, 1992). According to this, individual and collective self-esteem categories were adopted by applying the division between the personal and the social on self-value feelings. Based on this, the concept of self-esteem refers to how the person feels about themselves in general and assesses certain components such as ethnic identity (Crocker and Luhtanen, 1990).

Relationships between individual and collective self-esteem have been investigated in different cultures. A medium-level positive relationship was observed between these two types of self-esteem in youths belonging to the Turkish ethnic group in the Netherlands (Verkuyten, 1998). Additionally, while there was a positive relationship between individual and collective self-esteem in Chinese-born teenagers who lived in Canada, no significant relationship was found in Canadian-born Chinese teenagers (Lay and Verkuyten, 1999). The degree of the relationship between the personal and ethnic self-esteem levels of an individual is dependent on their sense of belonging to the ethnic group (Phinney, 1991). For those who define themselves with their ethnic group, the distinction between the person and the ethnic group diminishes. This gives rise to the possibility that the relationship between personal and ethnic self-esteem will be significant. On the other hand, there is a clearer distinction between the group and the person among those who do not define themselves with their ethnic group, and this predicts that personal and ethnic self-esteem will be more independent.

There are several factors that affect self-esteem negatively. However, considering the disadvantaged ethnic groups, perceived discrimination and social status become prominent.

### 3. Perceived Discrimination and Social Status

While ethnic minority groups have low social statuses, they tend to be the victims of prejudice and discrimination. Presence of prejudice and discrimination is one of the main factors that affect the self-esteem of members of ethnic minority groups (Verkuyten and Nekuee, 2001). Studies revealed that the ethnic and racial discrimination experienced by group members who had lower self-value is harmful for their psychological functioning (Bobowik, Basabe and Páez, 2014).

In addition to presence of discrimination, how ethnic group members experience and interpret their situation is also effective on self-esteem. Perceived discrimination is generally defined as the belief or perception of a person that they are treated unfairly or negatively based on their skin color, physical traits, ethnic or cultural attachments. Sanchez and Brock (1996) explained perceived ethnic discrimination as “the individual perception that arises when a person is treated differently and selectively due to their ethnic associations.” Studies showed that minority groups consistently perceived group discrimination rather than individual discrimination (Taylor, Wright, Moghaddam and Lalonde, 1990). In a study with Turkish and Moroccan teenagers living in the Netherlands, it was found that the participants perceived more group discrimination than individual discrimination, and participants who perceived high levels of discrimination reported low self-esteem levels (Verkuyten, 1998). Even though members of disadvantaged ethnic groups are not personally exposed to discrimination, they may think that their ethnic group is discriminated against, and this situation affects their self-esteem negatively. In other words, be it on a personal or group level, perceived discrimination is harmful for psychological functionality.

Another factor that affects self-esteem negatively is the level of social status perceived in the existing social system. In a study conducted with youths, it was found that Latin Americans living in Spain showed higher levels of well-being than Africans and Romanians due to the positive social status they attributed to themselves (Bobowik et al., 2014). Moreover, blacks, women, and persons with physical disability or mental disorders were found to have lower self-esteem as they were relatively disadvantaged in the American society in terms of both economic opportunities and outcomes, as well as interpersonal outcomes (Crocker and Major, 1989). In a study with Chinese teenagers living in the Netherlands, those who perceived their social status to be high also had high levels of ethnic self-esteem (Verkuyten and Lay, 1998). According to these findings, individuals who perceive the social status of their ethnic groups positively will also have high self-esteem levels. On the other hand, individuals who perceive the social status of their ethnic groups negatively will also have low self-esteem levels.

### 4. Identity Management Strategies

Identity management strategies refer to a set of reactions shown by group members that have low self-esteem due to their disadvantaged positions in order to increase their self-esteem. Accordingly, people assume group perceptions strategically to place either themselves (a case of ‘individual strategy’) or their group (a case of ‘group-level strategy’) in a positive perspective (Ellemers and Rijswijk, 1997). Ethnic groups, rather than internalizing the ethnic discrimination directed towards them, use it as an effective tool to reach positive self-esteem levels. Individuals in a disadvantaged position reach to this ostracization by showing various reactions. This way, individuals fight the negative effects of the discrimination they experience and take initiatives to gain a positive social identity (Crocker and Major, 1989).

Tajfel and Turner (1979) provided potential explanations on the subject of how members of disadvantaged groups may obtain a positive individual and group identity in the framework of social identity theory. According to this, in connection to the status relationships among the groups in a society and relevant social-structural conditions, members of disadvantaged groups try to reestablish positive self-esteem by choosing individual or collective identity management strategies. The selected strategy is usually dependent on the belief system of individuals. Tajfel and Turney (1979) made a distinction between two different belief systems as “social mobility” and “social change”. The social mobility belief system assumes that the lines between social groups are flexible and permeable, and individuals can move from a lower group to an upper group by skills and effort. People who adopt this

belief system usually try to gain a positive identity by using an individual strategy called “individual mobility”; they leave their group to enter a higher-status group. On the other hand, beliefs of social change assume that group lines are impenetrable, and it is therefore impossible to leave one’s own group. In this case, positive social identity may be developed by one of two general strategies based on the perceived legitimacy level of the intergroup status quo. In the first of these, if the status quo is perceived as legitimate, sub-groups may use “social creativity” strategies that aim to reevaluate the group (e.g., “We might not be smarter than them, but we are more beautiful and honest.”). On the other hand, if the status quo is perceived as illegitimate, sub-groups have a tendency to choose a “social competition” strategy. When social competition strategies are used, direct conflicts among the groups (social activism, collective protests, revolutions, war and terrorism) occur. In such cases, large- or small-scale social movement emerge (Hogg and Abrams, 1988).

Blanz et al. (1998) determined 12 strategies based on theories of social identity, social comparison and self-categorization. These are categorized under 2 different dimensions as individual-collective and behavioral-cognitive, and 4 main titles. As individual mobility and assimilation aim to increase the individual identity of the person, they are individual strategies, whereas they are behavioral strategies as they require mobility to access a group with higher status. Social competition and realistic competition are collective strategies as they aim to increase the identity of the group collectively rather than the identity of the individual, and they are behavioral strategies as they require various acts for the in-group identity. The other eight strategies are cognitive strategies as they generally involve comparison and categorization. Generally speaking, these may also be categorized as individual, cognitive and competitive strategies.

The literature review revealed findings suggesting that the acts of focusing on positive aspects of identity and prioritizing the identity’s strong sides by low-status groups and the sense of control related to the strategies in question act as a buffer in protecting self-esteem against discrimination and the negative influence of status (e.g., Harris-Britt et al., 2007; Moradi and Hasan, 2004). Bobowik et al. (2014) conducted a study with immigrants from different ethnic groups living in Spain and showed that identity management strategies were related to both psychological and social well-being. Moreover, Crocker and Major (1989) emphasized the potential intermediary role of strategies by reporting that members of stigmatized groups were able to preserve their concept of self and increase their self-esteem by adopting various strategies.

## 5. General Discussion

According to approaches that discuss the self in terms of group membership, the self-value of the individual is under the influence of the identity value of the group they belong to (Larry and Verkuyten, 1999). This is because, according to these approaches, both we and other people around us perceive, define and assess us based on our group memberships. Therefore, living under the influence of a negative group identity for a long time has a harmful effect on the self. Considering that they are exposed to discrimination, it was reported that members of disadvantaged or minority groups had lower self-esteem (Verkuyten, 1998). Especially the initial views in the literature were that ethnic minorities have low self-esteem. For example, Erikson (1956) stated that there is evidence of feelings of ‘inferiority’ in all minority groups, and that feelings of self-hate and worthlessness were caused by being members of ostracized groups. In recent years, in contrast to these views, the experiences related to negative processes imposed on ethnic minority or disadvantaged group members have started to be interpreted and discussed in different ways. In generally, it was argued that negative processes in these groups may provide positive outcomes where necessary coping sources are accessible (Crocker and Major, 1989; Tajfel and Turner, 1979).

The purpose of this study is to propose a model that is based on the intermediary role of identity management strategies in the relationship between perceived discrimination and social status, and self-esteem. Towards this purpose, it is aimed firstly to investigate differences in self-esteem as a function of discrimination and social status and then investigate the intermediary role of identity management strategies in the relationships between perceived discrimination and social status, and self-esteem. Figure 1 shows the model that was created about how disadvantaged ethnic groups protect

their self-esteem within the framework of identity management strategies proposed by social identity theory. As perceived discrimination and low social status affect self-esteem negatively, individuals will adopt one or more individual, cognitive or competitive strategies. As individuals who adopt individual or cognitive strategies think individually rather than in terms of group identity, their individual self-esteem will be protected, but their collective self-esteem will be affected negatively. As opposed to this, as those who prefer competitive strategies aim to increase the group identity, they will protect their collective self-esteem; however, their individual self-esteem may be affected negatively as they continue to be the member of the disadvantaged group.

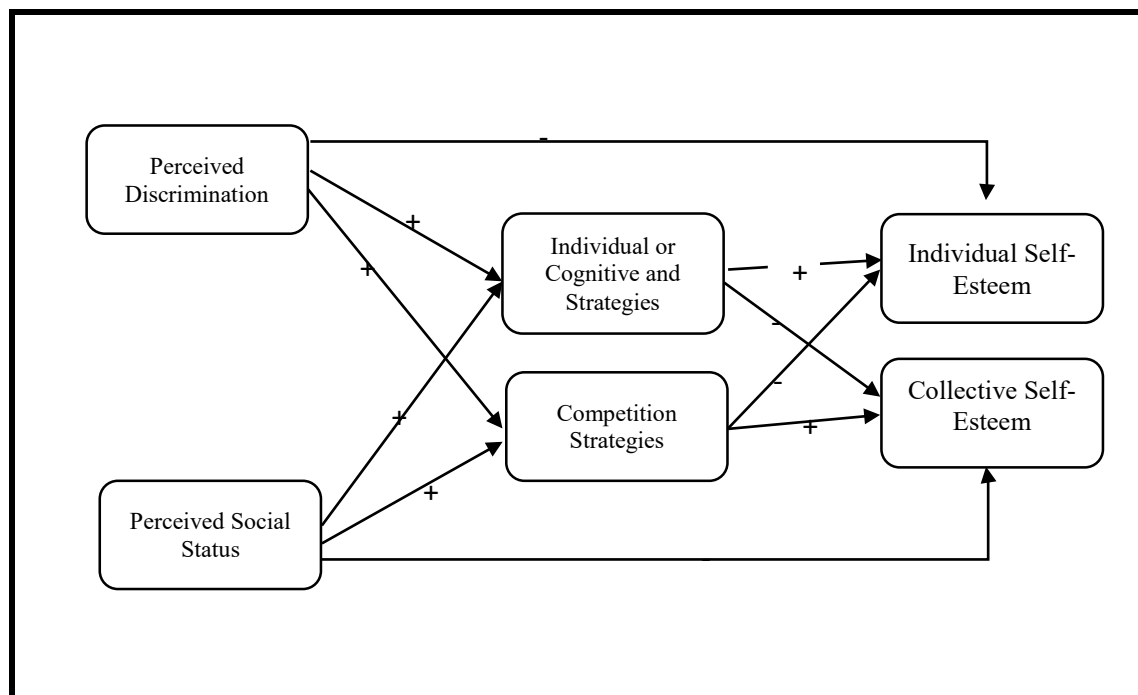


Figure 1. The proposed model of relationships between the variables.

## 6. References

- Blanz, M., Mummendey, A., Mielke, R., & Klink, A. (1998). Responding to negative social identity: A taxonomy of identity management strategies. *European Journal of Social Psychology*, 28(5), 697-729.
- Bobowik, M., Basabe, N., & Páez, D. (2014). Identity Management Strategies, Perceived Discrimination, and Well-Being Among Young Immigrants in Spain. In R. Dimitrova, M. Bender & F. van de Vijver (Eds.), *Global Perspectives on Well-Being in Immigrant Families* (pp. 213-234), Springer Science+Business Media, New York.
- Crocker, J., & Major, B. (1989). Social stigma and self-esteem: The self-protective properties of stigma. *Psychological Review*, 96(4), 608.
- Crocker, J., & Luhtanen, R. (1990). Collective self-esteem and ingroup bias. *Journal of Personality and Social Psychology*, 58(1), 60-67.
- Ellemers, N., & Van Rijswijk, W. (1997). Identity needs versus social opportunities: The use of group-level and individual-level identity management strategies. *Social Psychology Quarterly*, 52-65.
- Erikson, E. (1956). The problem of ego-identity. *Journal of the American Psychoanalytic Association*, 4, 56-121.
- Harris-Britt, A., Valrie, C. R., Kurtz-Costes, B. ve Rowley, S. J. (2007). Perceived Racial Discrimination and Self-Esteem in African American Youth: Racial Socialization as a Protective Factor, *Journal of research on Adolescence*, 17(4), 669-682.
- Hogg, M. A., & Abrams, D. (1988). *Social identifications*. London: Routledge.
- James, W. (1950). *The principles of psychology*. New York: Dover. (Original work published 1890)

Lay, C., & Verkuyten, M. (1999). Ethnic identity and its relation to personal self-esteem: A comparison of Canadian-born and foreign-born Chinese adolescents. *The Journal of Social Psychology, 139*(3), 288-299.

Luhtanen, R., & Crocker, J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin, 18*(3), 302-318.

Moradi, B., & Hasan, N. T. (2004). Arab American Persons' Reported Experiences of Discrimination and Mental Health: The Mediating Role of Personal Control. *Journal of Counseling Psychology, 51*(4), 418-428.

Phinney, J. S. (1991). Ethnic identity and self-esteem: A review and integration. *Hispanic Journal of Behavioral Sciences, 13*(2), 193-208.

Sanchez, J. I., & Brock, P. (1996). Outcomes of perceived discrimination among Hispanic employees: Is diversity management a luxury or a necessity? *Academy of Management Journal, 39*(3), 704-719.

Tajfel, H., & Turner, J. C. (1979). An Integrative Theory of Intergroup Conflict. In W. G. Austin & S. Worchel (Eds.), *The Social Psychology of Intergroup Relations* (pp. 33-47), Brooks-Cole, Monterey, CA.

Taylor, D. M., Wright, S. C., Moghaddam, F. M., & Lalonde, R. N. (1990). The personal/group discrimination discrepancy: Perceiving my group, but not myself, to be a target for discrimination. *Personality and Social Psychology Bulletin, 16*(2), 254-262.

Verkuyten M. (1998). Perceived Discrimination and Self-Esteem Among Ethnic Minority Adolescents, *The Journal of Social Psychology, 138*(4), 479-493.

Verkuyten, M., & Lay, C. (1998). Ethnic minority identity and psychological well-being: The mediating role of collective self-esteem. *Journal of Applied Social Psychology, 28*(21), 1969-1986.

Verkuyten, M., & Nekuee, S. (2001). Self-Esteem, Discrimination, and Coping Among Refugees: The Moderating Role of Self-Categorization. *Journal of Applied Social Psychology, 31*(5), 1058-1075





# **Under Disciplinary Regulations, The Distribution of disciplinary action of Accounting Profession Members and Ranking By Cities: Case of Turkey (2008-2014)**

Alper Tunga Alkan

## **1. Introduction**

As in every profession, supervision activities has also an important effect on accounting profession. When responsibility area of the members of accounting profession are taken into consideration, it reveals that it is necessary for them to be supervised from time to time, in order to be able to determine whether or not they perform their legal duties and authorities in a reliable way. Just as elimination of shortcomings identified will more increase the value attributed on care of society, it will also enable the problems between the members of profession to be reduced to the minimum level.

As a result of the tasks the members of accounting profession realize, the reliability of information obtained from the aspect of decision makers is a subject that has been discussed. On the other hand, when the difficulty of directly achieving its resource of the decision makers of interest to examine the presented information, and social costs it will bring with it are considered, the importance of supervision activities increases much more.

Especially in the last years, that some events which reduce the value of accounting profession on the cares of society such as Enron, were experienced revealed that it must be supervised, besides the transactions carried out by the members of accounting profession, the members of profession themselves. In the discussions under consideration, the general idea is in the form that, for the trust felt to the member of profession to be able to increase, and for a positive opinion to be able to form in the direction of its trueness and impartiality, in the necessary conditions, supervising the members of profession became obligatory.

Supervision of the profession members increases the value of them in the minds of decision makers and it also makes a contribution to the solution of problems, experienced among the members of profession and between the members of profession and taxpayers. Especially, in terms of identifying the problems and using the learning culture toward the problems as an educational instrument, the fact that the concept supervision toward the members of profession becomes established provides the continuity of accounting profession in a certain standards, and building of future of profession in a certain standards.

In this study, first of all, supervision of the members of accounting profession and disciplinary penalties to be faced by subjecting to this supervision are discussed at the theoretical framework. Secondly, the activities toward the realized in Turkey and findings obtained are evaluated together. Finally, in Turkey, on the basis of the years 2008-2014<sup>1</sup>, stating the numbers of the members of accounting profession and the total of the penalties imposed and considering 10 provinces, where the most and least members of accounting profession are present, an evaluation was made for Turkey.

## **2. Supervision Of The Accounting Profession Members And The Sort Of Discipline Punishment In Turkey**

In Turkey, the members of accounting profession can be supervised by three different methods. The first of these are supervisions carried out by chambers of profession; the second, finance ministry, and third, supervisions, which can be expressed as “partial control” during certified cross-examination. In this study, only the sort of supervision carried out by chamber of profession is discussed in the direction of the study.

In the study of interest, in the examinations carried out, in the scope of legislation taking as a subject the accounting profession, under the title of “supervision of the members of profession”, even

though any expression is not met, including in the law of profession, numbered 3568, and the regulations determined below, the expressions of “the crimes, related to the duty, disciplinary penalties and penalty provisions, which can be defined as supervision activities, take place.

In the scope, the law of profession, numbered 3568, the relevant items, in which the information about “the crimes related to duty”, “disciplinary crimes” and “criminal provisions” are given place, were discussed in detail in the Disciplinary Regulation of the Law of “Independent Accounting and Certified Financial Advisory, published in Official Newspaper”, dated of 31.10.2000 and numbered 24216, According to this, disciplinary investigation about the members of profession is realized in 4 forms. These are *a)* the notice and complaint of the relevant person *b)* the demand of any of the rules of relevant chamber, *c)* the demand of any of association rules, and the investigations conducted about the head of members of chamber or association board, considered responsible, through the decision of the relevant chamber or association board.

As they take place in the regulations, the states where the member of profession will be deemed guilty and the penalties they will receive as a result of supervision are collected in the 4 main title as the penalties of notice, reprimand, retention from professional activity temporally, and dismissing from profession For these sanctions to be able to be under consideration, the states and behaviors deemed crime are summarily arranged as in the following Table 1:

**Table 1. The States Deemed Crime for The Members of Accounting Profession and The Penalties They Will Receive in Turkey**

<b>Punishment</b>	<b>Status Deemed Crime</b>
Notice	Remaining indifference and uninterested to the works of customers; behaving against the subjects of contract, which will be made on the professional subjects with the customers; behaving against the provisions of circulars and directives, published by association; that member of profession does works, which does not match with the solemnity and honor of the profession; not submitting the information to the chamber completely and truly; becoming a part of interest conflicts; not submitting the information and documents required by chamber.
Reprimand	Renewing any actions requiring the penalty of notice in a tree years' period; the use of title that are not possessed; accepting the work without considering the written service contract; arranging the false and misleading document; not complying with the advertisement prohibition; collecting the wage different from the fee tariff; making work suggestions and implementations about the taxpayers of the other members of profession; providing advantage in competition; making unreal notice and complaint about the other member of profession;
Retention from professional activity temporally	Repeating any state and action requiring the penalty of reprimand; working the hidden service contract; making cooperation against the laws and regulations; not complying with the prohibition of commercial activity; deliberately using the authority to sign and supervise declaration against the true,
Dismissing from profession	Two times in five years after being punished with retention from the activity, committing again the action requiring this punishment; receiving heavy imprisonment due to the crimes related to the profession; causing the tax punishment deliberately; hiring the license of profession to another person; making transaction using the name of the other members of profession.

### 3. Literature: The Studies About Supervision On The Accounting Profession In Turkey

Although there are many studies about the accounting profession, the number of those studying on supervision of member of profession is considerably limited in both international and national literature. In this study, besides a few numbers of study related to the subject of study, although basically another dimension of the accounting profession is taken as a subject, the relevant sections of the studies mentioning about supervision of the members of accounting profession are given place.

A study including a common subject with this study was carried out by Banar and Aslan (2009). In that study including the period of 2000-2008 about disciplinary penalties received by the members of accounting profession, due to the fact the disciplinary penalties imposed are not announced to the public in accordance with the law of profession, being based on the activity reports, the penalties of profession members received according to the regions in Turkey are numerically examined.

Uzay and Tanç (2004) carried out attracting attention the presence of unfair competition between the members of profession, in their study and reveal the results in the way that the taxpayers evaluate the members of the accounting professions

In the study, carried out by Arıkan (2004), the problems related to the accounting profession were discussed in the various titles. The conclusion of the study is an unfair competition was experienced between the members of accounting profession. In addition, in the studies, using the expression that “in the follow of the constraints made about unlicensed personnel, the chamber must be able to be utilized as intervener”, in the follow of those performing the accounting profession as undeclared, it is emphasized that professional chambers remained ineffective.

Arıkan (2000) who also serves head of chamber of independent accountants and financial advisors, points out unfair competition as one of the most serious problems the members of the accounting face with. He writes about the elements engendering the unfair competition and puts then in order as undeclared offices, license hiring, unfair competition created by the dependent employees, unfair competition via announcement, advertisement, and signboard, unfair competition created by customers, and unfair competition crested by the members of profession, lowering price and conceding about quality.

According to the results of study carried out by Kalaycı and Tekşen (2006), the great majority of the members of profession suggest that their colleagues keep books cheaply and, thus, thinks that the accounting profession loses value on the cares of society. On the other hand, the members of the accounting profession requires from the chambers, to which they subject, them to find solution the unfair competition between their colleagues is an emphasis on the increasing importance of the concept supervision.

In the study, where “Survey of Members of Accounting Profession” is evaluated by Apak (2006), using the expression that “the subjects such as “unfair competition, service quality, and wage problem, and etc. must be taken under follow and control and the necessary solution ways must be founded”, it is emphasized that it is necessary to supervise the members of profession.

In an other study that was carried out by Bilen (2008), the important results attracts attention, determined in the way that there is an intensive competition among the members of accounting profession; that the fees the profession members receive are not standard; that the mistakes the profession members make in view of their ambitions and ignorance are charged on the profession; that the members of profession exhibit unethical behaviors; and that the lack of supervision impedes that the profession is applied more seriously.

According to the study which was carried out by Özulucan et al. (2010), the distrust of taxpayers toward the members of accounting profession leads them not to care accounting all over Turkey, in turn, the members of profession. This situation stalemates the solution of problems experienced between taxpayers and members of profession.

When all of these studies are evaluated, it is seen that in the literature, the main existing problems related to the subject of supervision are collected under three titles as unfair competition, fee, and problems related to ethics and chamber of profession.

#### 4. Methodology

In scientific studies, the theoretical and field studies are commonly given place. In this study under consideration, using literature review as well as statistical data, an applied method was preferred.

The data used in the empirical part of the study were obtained from the activity reports, published in the official website of TURMOB. The activity reports of interest includes the years of 2009 and 2014. But, since the imposed disciplinary penalties taking place in the official website are collectively presented in the activity reports of the year 2010, combining the data of 2008, 2009, and 2010, the information was tabulated in the way of 2010 and 2014.

While the findings are evaluated, as statistical method, frequency distribution was used. The reason for this is that the detailed information is not given about penalties and that only numerical values according to the sorts of penalties. In summary, using the number of members of profession and data on the sorts of amount of punishment imposed, analysis was carried out.

#### 5. Results And Discussion<sup>2</sup>

In Turkey, total 2075 penalty were imposed on the members of accounting profession between the years of 2008 - 2014. 289 of these penalties are called as the other penalties (decision of no-prosecution, not imposing penalty, etc.). This situation was not included in the evaluation for this study. The number of total penalties included in the Table 2, is 1786.

In Turkey, there were 78,569 members of accounting profession in 2011; 80,414 in 2011; 85,417 in 2012; 88,147 in 2013, and 91,457 in 2014. Also, 782 discipline penalty was imposed between the years 2008-2010; 470, in 2011; 173, in 2012; 133 in 2013; and 228 in 2014. Thus, the total number of files that becomes definite between the years of 2008-2014 was determined as 1786. The distribution of these penalties according to their sorts is like in Table 2:

**Table 2. Distribution of Penalties According to The Sorts and Years**

Sort of Penalty	2008 -2010	2011	2012	2013	2014	Toplam	%
Notice	257	188	33	27	39	544	30,46
Reprimand	292	156	51	46	69	614	34,38
Retention from professional activity temporally	150	91	56	44	76	417	23,35
Dismissing from the profession	83	35	33	16	44	211	11,81
Total	782	470	173	133	228	1786	100

When the values presented in the activity reports are examined, in Turkey, in the categories of penalties imposed on the members of accounting profession, there is reprimand (614) in the first order; notice (544), in the second order; retention from professional activity (417), in the third order; and dismissing from profession (211), in the last order. In this context, the most imposed sort of penalty by chamber of profession on the members of accounting profession is reprimand with the share of 34.88%.

<sup>2</sup> First it should be noted that; the main reason of the differences in number of professionals between cities is the differences in the number of taxpayers. In this study, only the number of professionals and penalties were considered.

## Under Disciplinary Regulations

The other remarkable point is that the penalties are mostly between the years of 2008-2010. However, since the values of interest include a process of three years, a healthy analysis cannot be carried out. When this situation is ignored, it is seen that the penalty is imposed the most in 2011 and that this is followed by the years of 2014, 2012, and 2013. In addition, the penalties of notice, reprimand, retention from activity is imposed the most in 2011; that dismissing from the profession was imposed the most in 2014; and that the year all penalties were imposed the least was 2013.

In Turkey, the number of members of the accounting profession according to the provinces and total of the imposed discipline penalties coming from SMMM chambers in respect with the sort of penalty, which is expressed as file, made decision on it, is stated in Table 3:

**Table 3. In Turkey, The Number of Members of The Accounting Profession According to The Provinces In The Years of 2010, 2011, 2012, 2013 and 2014 and Total of The Imposed Discipline Penalty**

	Provinces	Number of Members of Accounting Profession					The imposed disciplinary penalty					Total of penalties
		2010	2011	2012	2013	2014	2008-2010	2011	2012	2013	2014	
	Adana	846	821	943	988	1037	16	5	2	9	8	60
	Adıyaman	44	45	54	61	74	3	1	1	0	1	6
	Afyonkarahisar	15	24	50	65	72	8	0	0	0	1	9
	Aksaray	52	48	56	54	53	1	2	0	0	0	3
	Alanya	29	51	79	94	10	0	0	3	1	1	5
	Amasya	96	72	84	90	90	2	1	0	1	1	5
	Ankara	10008	10180	10703	1056	1480	27	7	7	4	4	129
	Antalya	475	508	684	780	632	29	1	5	4	4	53
	Artvin	3	7	3	7	6	0	0	0	0	0	0
0	Aydın	66	43	91	81	101	13	3	6	1	3	36
1	Balıkesir	27	87	13	23	49	6	3	5	3	0	17
2	Bartın	02	8	08	06	06	0	0	0	0	0	0
3	Batman	30	31	34	39	45	0	0	0	0	1	1
4	Bilecik	22	16	25	26	30	1	0	0	0	0	1
5	Bitlis	8	1	2	6	7	0	0	0	0	0	0
6	Bodrum	57	66	78	82	90	0	1	2	1	2	6

## Alper Tunga Alkan

7	Bolu	03	3	2	3	3	3	3	4	0	2	2	11	
8	Burdur	16	2	2	2	2	2	1	3	0	0	2	6	
9	Bursa	643	3	3	3	4	4	23	5	8	5	2	114	
0	Çanakkale	88	3	3	3	3	4	5	0	0	0	3	8	
1	Çankırı	04	1	1	1	1	1	0	0	0	0	0	0	
2	Çorlu	-	2	2	2	2	2	0	3	0	0	0	3	
3	Çorum	95	3	3	3	3	3	2	2	1	2	1	8	
4	Denizli	001	1	9	1	1	1	4	5	2	0	2	13	
5	Diyarbakır	39	3	3	3	3	4	10	0	0	0	0	10	
6	Düzce	05	2	1	2	2	2	4	9	1	0	1	15	
7	Edirne	73	3	2	3	3	3	11	7	1	0	4	23	
8	Elazığ	14	2	1	2	2	2	3	1	0	0	0	4	
9	Erzincan	29	1	1	1	1	1	0	0	0	0	0	0	
0	Erzurum	87	2	2	2	2	2	0	2	1	0	0	3	
1	Eskişehir	69	7	7	7	7	8	16	7	1	2	0	26	
2	Fethiye	-	-	2	2	2	2	0	0	3	0	0	3	
3	Gaziantep	389	1	1	1	1	1	19	3	1	6	5	6	49
4	Giresun	00	2	1	2	2	2	0	0	0	0	0	0	
5	Gümüşhane	4	6	6	6	6	6	1	0	0	0	0	1	
6	Hatay	85	8	5	5	5	6	38	7	2	2	1	50	
7	Isparta	24	3	3	3	3	3	1	0	0	0	0	1	
8	İskenderun	-	3	3	3	3	3	0	2	0	1	3	6	
9	İstanbul	7929	2	2	3	3	3	21	32	1	3	2	4	452
0	İzmir	595	5	5	6	6	6	81	3	4	2	1	1	183
1	Kahramanmaraş	41	4	4	4	4	4	0	0	1	0	0	1	

## Under Disciplinary Regulations

2	Karabük	181	174	187	189	190	0	0	0	0	0	0
3	Karaman	188	189	194	197	202	2	0	0	0	0	2
4	Kars	116	114	120	121	123	4	0	1	0	0	5
5	Kastamonu	207	191	194	194	198	1	0	0	0	0	1
6	Kayseri	946	1015	1082	1129	1187	15	4	1	6	1	27
7	Kırıkale	180	159	175	174	171	7	0	3	0	0	10
8	Kırklareli	288	268	278	275	278	18	1	0	0	0	19
9	Kırşehir	115	110	120	118	119	0	1	0	0	0	1
0	Kocaeli	1130	1189	1290	1358	1422	8	6	5	6	2	27
1	Konya	1848	1868	1949	1974	2045	13	8	4	0	7	32
2	Kütahya	302	292	310	313	318	5	7	2	0	0	14
3	Malatya	387	391	401	416	424	12	2	4	1	1	20
4	Manavgat	-	-	-	-	75	2	0	0	0	0	0
5	Manisa	790	779	802	820	842	16	3	1	5	0	53
6	Mardin	196	186	198	110	117	1	0	0	0	0	1
7	Mersin	1529	1506	1563	1583	1616	56	5	3	7	4	102
8	Muğla	817	847	835	850	867	6	1	2	1	1	11
9	Muş	28	13	13	33	63	0	1	1	0	0	2
0	Nevşehir	242	240	243	236	234	0	0	0	0	0	0
1	Niğde	124	123	124	125	122	0	2	0	2	0	4
2	Ordu	338	329	344	336	339	1	2	2	1	0	6
3	Osmaniye	120	117	134	137	146	0	0	0	0	0	0
4	Rize	210	197	208	206	206	3	3	0	0	0	6
5	Sakarya	739	707	768	786	808	13	3	1	2	2	21
6	Samsun	801	790	804	897	803	7	1	0	1	1	10



7	Sinop	8	8	8	8	8	0	0	0	0	0	0
8	Sivas	3	3	3	3	3	2	1	2	2	1	8
9	Şanlıurfa	3	3	3	3	3	0	0	0	1	0	1
0	Tekirdağ	6	3	4	4	4	26	2	0	1	0	29
1	Tokat	2	2	2	2	2	2	0	1	0	0	3
2	Trabzon	5	5	5	5	5	1	1	1	2	5	24
3	Uşak	2	3	3	3	3	1	0	0	0	0	1
4	Van	2	2	2	2	2	10	0	0	0	0	10
5	Yalova	2	2	2	2	2	9	2	1	0	1	13
6	Yozgat	2	2	2	2	2	1	0	0	0	0	1
7	Zonguldak	3	3	4	3	3	0	0	1	0	0	1
Total		7	8	8	8	9	78	4	1	1	2	1786
		8569	0414	5417	8147	1457	2	70	73	33	28	

**Resource:** Table has been prepared by compiling data derived from <http://www.turmob.org.tr/TurmobWeb/FaliyetRaporu.aspx>

**Note:** Although there are 81 provinces in Turkey, all over country, 81 Chambers of Independent Accountant and Financial Advisors. 4 of these chambers are in the districts. These are the districts Alanya, Fethiye, Manavgat and Bodrum.

As seen in Table 3, in 2014, while the most members of profession are in the Istanbul with 34923 the least members of profession are in the province Muş with 36 people.

When the table is generally evaluated, while the most penalty was imposed in the provinces İstanbul, Ankara and İzmir, in the 11 provinces (Artvin, Bartın, Bitlis, Çankırı, Erzincan, Giresun, Karabük, Manavgat, Nevşehir, Osmaniye and Sinop), it is seen that no penalty was not imposed.

After this stage, two different ways will be followed in the analysis. Firstly, being based on the number of profession, penalties will be examined; secondly, the imposed penalties will be proportioned to the number of member of profession.

**Table 4. Ten Provinces Where The Number of Members of Profession Are The Most and Detail of Penalties Imposed**

Province	Sorts of Penalty	Number of the imposed discipline penalties									
		2008-2010	%	2011	%	2012	%	2013	%	2014	%
İstanbul	No tice	47	21,96	36	27,27	8	22,22	6	24,00	11	24,44
	Re prim.	92	42,99	66	50,00	13	36,11	7	28,00	12	26,67
	Ret ent. Temp.	43	20,09	25	18,94	10	27,78	8	32,00	19	42,22
	Dis miss	32	14,95	579	3,79	5	13,89	4	16,00	3	6,67
	Tot al	214	100,00	132	100,00	36	100,00	25	100,00	45	100,00
Ankara	No tice.	11	40,74	6	35,29	-	-	1	7,14	4	6,25
	Re prim.	12	44,44	8	47,06	-	-	-	-	14	21,88
	Ret ent. temp	1	3,70	3	17,65	2	28,57	9	64,29	19	29,69
	Dis miss.	3	11,11	-	-	5	71,43	4	28,57	27	42,19
	Tot al	27	100,00	17	100,00	7	100,00	14	100,00	46	100,00
İzmir	No tice	27	33,33	23	53,49	4	16,00	2	13,33	3	15,79
	Re prim	27	33,33	7	16,28	6	24,00	6	40,00	2	10,53
	Ret ent. Temp.	17	20,99	9	20,93	8	32,00	6	40,00	13	68,42
	Dis miss.	10	12,35	4	9,30	7	28,00	1	6,67	1	5,26
	Tot al	81	100,00	44	100,00	25	100,00	15	100,00	19	100,00
Bursa	No tice	7	30,43	40	71,43	4	50,00	-	-	6	27,27
	Re prim.	8	34,78	10	17,86	1	12,50	5	10,00	15	68,18
	Ret ent. Temp.	7	30,43	6	10,71	2	25,00	-	-	1	4,55
	Dis miss.	1	4,35	-	-	1	12,50	-	-	-	-
	Tot al	23	100,00	56	100,00	8	100,00	5	100,00	22	100,00

## Alper Tunga Alkan

Antalya	No tice	6	20,69	5	45,45	-	-	1	25,00	-	-
	Re prim	8	62,07	4	36,36	3	60,00	2	50,00	4	10,00
	Ret ent. Temp.	3	10,34	1	9,09	1	20,00	1	25,00	-	-
	Dis mis	2	6,90	1	9,09	1	20,00	-	-	-	-
	Tot al	9	10,00	1	10,00	5	10,00	4	10,00	4	10,00
Konya	No tice	1	7,69	4	50,00	-	-	-	-	-	-
	Re prim.	9	69,23	3	37,50	4	10,00	-	-	1	14,29
	Ret ent Temp.	3	23,08	-	-	-	-	-	-	5	71,43
	Dis mis.	-	-	1	12,50	-	-	-	-	1	14,29
	Tot al	3	10,00	8	10,00	4	10,00	0	0	7	10,00
Adana	No tice	3	18,75	9	60,00	2	16,67	1	11,11	2	25,00
	Re prim	7	43,75	2	13,33	3	25,00	5	55,56	3	37,50
	Ret ent. Temp	5	31,25	2	13,33	7	58,33	3	33,33	-	-
	Dis miss.	1	6,25	2	13,33	-	-	-	-	3	37,50
	Tot al	6	10,00	15	10,00	2	10,00	9	10,00	8	10,00
Gaziantep	No tice	-	-	-	-	-	-	-	-	-	-
	Re prim	5	26,32	2	15,38	1	16,67	-	-	-	-
	Ret ent Temp	4	73,68	6	46,15	3	50,00	3	60,00	5	83,33
	Dis miss	-	-	5	38,46	2	33,33	2	40,00	1	16,67
	Tot al	9	10,00	3	10,00	6	10,00	5	10,00	6	10,00
Mersin	No tice	7	12,50	19	54,29	3	42,86	1	25,00	-	-
	Re prim.	3	41,07	1	31,43	2	28,57	1	25,00	-	-
	Ret ent. Temp.	2	21,43	3	8,57	1	14,29	1	25,00	-	-

## Under Disciplinary Regulations

	Dis miss	1 4	25 ,00	2 5	5, 71	1 ,29	14 ,00	1 ,00	25 ,00	-	-
	Tot al	5 6	10 0,00	3 5	10 0,00	7	10 0,00	4	10 0,00	0	0
Kocaeli	No tice	1	12 ,50	2	33 ,33	3	60 ,00	2	33 ,33	1	50 ,00
	Re prim	5	62 ,50	-	-	-	-	4	66 ,67	-	-
	Ret ent. Temp	1	12 ,50	2	33 ,33	2	40 ,00	-	-	-	-
	Dis miss.	1	12 ,50	2	33 ,33	-	-	-	-	1	50 ,00
	Tot al	8	10 0,00	6	10 0,00	5	10 0,00	6	10 0,00	2	10 0,00

When regarded to ten provinces where there are the most members of profession, it is seen the provinces İstanbul, Ankara, İzmir, Bursa, Antalya, Konya, Adana, Gaziantep, Mersin, and Kocaeli. These provinces are also the ones having the highest population density and in turn taxpayer density.

In the first order of list, Istanbul takes place. In Istanbul, between the years of 2008-2012, while the most imposed penalty was reprimand, in the years of 2013 and 2014, the penalty retention temporarily takes place in the first order. In the time period of interest, the penalty received the least in the time period of interest is the penalty of dismissing from profession.

In the province Ankara taking place in the second order of the list, the most imposed penalty in the years of 2012 and 2014 is retention from profession, while in 2013, the penalty of retention from the professional activities became the most imposed penalties. The least imposed penalty, in the years of 2012-2014, the retention from professional activities temporarily, in 2013, no reprimand was imposed. In 2014, the least imposed penalty was notice.

There is İzmir in the third number of the list. In İzmir, in the years of 2008-2010 notice and reprimand were the most imposed penalties; in 2011, notice; in the years of 2012 and 2014, retention from professional activities, temporarily; and in 2013, reprimand. In the province of interest, except for 2012, in the other slices of time, while the least imposed penalty was retention from profession, in 2012 it became notice.

When it is generally considered, in the time interval of interest, while the penalty received in these provinces was reprimand (433), the least received penalty is retention from profession (157).

[illegible]

## Under Disciplinary Regulations

[illegible]

	Total	0	0	1	100,00	0	0	0	0	0	
Niğde	Notice	-	-	-	-	-	-	-	-	-	
	Reprimand	-	-	-	-	-	-	1	50,00	-	
	Retention temporary	-	-	1	50,00	-	-	1	50,00	-	
	Dismissing	-	-	1	50,00	-	-	-	-	-	
	Total	0	0	2	100,00	0	0	2	100,00	0	
Kars	Notice	4	100,00	-	-	-	-	-	-	-	
	Reprimand	-	-	-	-	1	100,00	-	-	-	
	Retention temporary	-	-	-	-	-	-	-	-	-	
	Dismissing	-	-	-	-	-	-	-	-	-	
	Total	4	100,00	0	0	1	100,00	0	0	0	

Ten provinces, where there are the member of profession in the least number, in other words, having the least share in terms of the number of member of profession are Muş, Bitlis, Gümüşhane, Sinop, Artvin, Çankırı, Bartın, Kırşehir, Niğde and Kars, respectively. These provinces of interest are the ones, both whose population density is not more, and where the number of taxpayer is less.

In the province Muş, taking place in the first order of list, in the selected slice of time, in only the years of 2011 ve 2012, while only one the penalty of dismissing from profession, no other penalty was not imposed.

There is Bitlis in the second order of list. In this province, no penalty was not imposed in the period specified.

In the province Gümüşhane is in third order that follows Bitlis, only in the years of 2008 and 2010, one reprimand was imposed.

When generally regarded to, in the selected time intervals, in these provinces under consideration, it is seen that in total, 5 penalty of notice, 3 reprimand, and 2 retention from professional activity temporally were imposed.

**Table 6. With Proportioning of Penalties to The Number of Members of Profession, The Provinces Receiving The Penalty in The Most Number**

I tem No	2008-2010		2011		2012		2013		2014	
	Pro vinces	%	Pro vinces	%	Pro vinces	%	Pro vinces	%	Pro vinces	%
1	Kır klareli	6 ,25	Dü zce	5 ,14	Mu ş	3 ,23	Niğ de	1 ,60	Ma nisa	1 ,07
2	Va n	4 ,72	Mu ş	3 ,23	Kırı kkale	1 ,71	Ma nisa	1 ,22	Edir ne	1 ,05
3	Yal ova	4 ,35	Tra bzön	2 ,94	Fet hiye	1 ,19	Bol u	0 ,65	Tra bzön	0 ,91
4	Hat ay	4 ,29	Edi rne	2 ,48	Mal atya	1 ,00	Siv as	0 ,61	İske nderun	0 ,90
5	Tek irdağ	4 ,04	Küt ahya	2 ,40	Kar s	0 ,83	Kay seri	0 ,53	Bur dur	0 ,90
6	Kırı kkale	3 ,89	Me rsin	2 ,32	Ay dın	0 ,76	Am asya	0 ,53	Çan akkale	0 ,74
7	Me rsin	3 ,66	Ay dın	1 ,75	Bod rum	0 ,72	Çor um	0 ,51	Bat man	0 ,69
8	Kar s	3 ,45	Niğ de	1 ,67	Adı yaman	0 ,65	Ad ana	0 ,45	Bod rum	0 ,69
9	Mal atya	3 ,10	Riz e	1 ,63	Küt ahya	0 ,65	Koc aeli	0 ,44	Bol u	0 ,65
10	Diy arbakır	2 ,95	Bur sa	1 ,52	Ala nya	0 ,63	Tra bzön	0 ,37	Adı yaman	0 ,57

**Note:** The total number of members of profession and the imposed penalties are specified in Table 2.

Besides the different population and taxpayer densities, that the members of profession are also in the different densities in terms of numerical distribution requires making proportion in calculating the share of penalty distribution on the basis of provinces. In the analysis of penalties imposed toward this in terms of their rates to the number of members of profession, a different situation emerges.

In the years of 2008-2010, 6.25% of 288 members of profession, who are present in Kırklareli, received penalty. This situation is followed by Van, Yalova, Hatay, Tekirdağ, Kırıkkale, Mersin, Kars, Malatya, and Diyarbakır respectively.

In 2011, 5.14 % of 175 members of profession in Düzce received penalty. This is followed by Muş, Trabzon, Edirne, Kütahya, Mersin, Aydın, Niğde, Rize, and Bursa respectively.

In 2012, 3.23% of 31 members of profession in Muş received penalty. This is followed by Kırıkkale, Fethiye, Malatya, Kars, Aydın, Bodrum, Adıyaman, Kütahya, and Alanya respectively.

In 2013, 1.60% of 125 members of profession in Niğde received penalty. This is followed by Manisa, Bolu, Sivas, Kayseri, Amasya, Çorum, Adana, Kocaeli and Trabzon respectively.

In 2014, 1.07% of 842 members of profession in Manisa received penalty. This is followed by Edirne, Trabzon, İskenderun, Burdur, Çanakkale, Batman, Bodrum, Bolu, and Adıyaman respectively.

When generally regarded to, with proportioning of penalties to the number of members of profession, although the table of province that emerges shows diversity, it is possible to interpret as an indicator of that management mechanism does not work actively.

## 6. Conclusion

In terms of its responsibility to their shareholders, the profession of accounting is evaluated as the most important professions. The members of accounting profession have responsibilities, on the one hand, to their taxpayers (clients), on the other hand, both to investors and to the government, in turn, to all society, because of the case of "tax".



When the responsibility area is taken into consideration, in the accounting profession whose output is information, the rate of fault should be at the minimum level or even if there should not be any fault. Just as the smallest fault may cause to make faulty decisions about the future of taxpayers, it will also lead investors to make the wrong decisions and, making the wrong statement to the government, to pay for the faulty tax and hence, to commit a crime toward all society.

When it is considered that the area of social responsibility is extremely large, supervision of the members of the accounting profession and elimination of the problems, identified as a result of supervision activity, have a great importance. However, the point that should be pay attention here is that the source of fault in the frequently made transactions is correctly identified and in this context, that the members of accounting professions should be trained by chambers of profession. In addition, the penalty sanctions to be applied should have a deterrent feature. Although the penalty sanctions are determined by laws due to inadequate supervision activities, the necessary actions cannot be taken in place and in time. In Turkey, since supervision of the members of accounting professions subjects to the demand and complaint, this case impedes the effective and continuous supervision. Just as the presence of a systematic supervision that does not depend on the complaint and demand will lead the members of profession to exhibit more careful attitudes and behaviors, at the same time, due to its deter feature, without needing any disciplinary penalty, the faults to be kept at the minimum and an acceptable level.

According to the findings that are obtained in the study, as a result of supervisions carried out between the years 2000-2014 in Turkey, it was identified that 1786 members of professions received penalty. Among the penalties, reprimand takes place in the first order. When the members of professions to whom the penalty was imposed, are evaluated on the basis of the province, where they are in active, it was determined that the most penalty was imposed in the province Istanbul. Then the number of penalties, imposed in the provinces of Ankara, İzmir, Bursa, Antalya, Konya, Adana, Gaziantep, Mersin, and Kocaeli, are taken into consideration, it is seen that these take place among the first ten provinces. The ordering of provinces, where the penalties at the least number is imposed, was identified as the provinces (Muş, Bitlis, Gümüşhane, Sinop, Artvin, Çankırı, Bartın, Kırşehir, Niğde and Kars) where the members of accounting profession in the least number are in active.

Another conclusion of the study, even though an increase which can be considered important, it is seen in the number of the members of accounting profession in Turkey is that the penalties imposed on the members of profession, do not exhibit in the same rate. As the reason for this, it is possible to produce several different scenarios. It is possible to introduce this situation as the educational activities about making conscious the chambers of profession, deterrence of penalty, the deficiency of supervision or not being able to make effectively and not efficiently operating of the complaint and demand mechanism in Turkey.

As a conclusion, it is necessary to continuously and effectively realize the supervisions toward the members of profession in a certain intervals without depending on any demand or complaint. In this way, enabling the members of profession both to develop themselves and more effectively work, the increase of value of profession in care of society will be under consideration.

## References

- 2009 – 2014 Yılları Arası TÜRMOB Faaliyet Raporları (TURMOB Annual Reports Between the Years 2009 – 2014). Retrieved August 15, 2015, from <http://www.turmob.org.tr/TurmobWeb/FaliyetRaporu.aspx>.
- Apak, T. (2006). *Muhasebe Meslek Mensupları Anketi Üzerine Bir Değerlendirme (A Survey Assesment about Professional Accountants)*. Retrieved January 1, 2010. From [http://www.alomaliye.com/agustos\\_06/talha\\_apak\\_muhmeslek.htm](http://www.alomaliye.com/agustos_06/talha_apak_muhmeslek.htm).
- Arıkan, Y. (2000). Kamuoyunda Mesleki İtibarımızı Yok Eden Haksız Rekabete Gelin Hep Birlikte Son Verelim (Let's End Together The Unfair Competition Which Destroy Our Professional Credibility In Public Opinion). *Mali Çözüm Dergisi*. 52, 1-7.

Arıkan, Y. (2004). Türk Muhasebe Mesleğindeki Gelişmelerin Ortaya Çıkardığı Sorunlar ve Çözüm Önerileri (Problems and Proposed Solutions Which Has Gone Forth by Developments in the Turkish Accounting Profession). *Mali Çözüm Dergisi*. 69, 7-13.

Banar, K. & Aslan, Ü. (2009). Muhasebe Meslek Mensuplarının Almış Oldukları Disiplin Cezaları Üzerine Bir Araştırma (2000 – 2008 Dönemi) (A Research on Disciplinary Penalties Received by Members of Accounting Profession (2000-2008 Term). *Muhasebe ve Finansman Dergisi*. 44, 91-110.

Bilen, A. (2008). Doğu Anadolu Bölgesindeki Muhasebe Meslek Mensuplarının Profilleri, Etik Kurallarına Bakışları ve Meslek Sorunları Üzerine Bir Araştırma (Profiles of Accounting Profession Members in Eastern Anatolian Region, Their Views for Ethics Rules and A Survey Study on Professional Problems), *Mali Çözüm*. 85, 27-42.

Kalaycı, Ş. & Tekşen, Ö. (2006). Muhasebecilik Mesleğinde Karşılaşılan Sorunlar ve Çözüm Önerileri: Isparta İl Merkezi Uygulaması (The Problems Faced In The Profession Of Accountancy And Suggestions For Solution; Practice In Isparta City Center). *Muhasebe ve Finansman Dergisi*. 31, 90-101.

Özulucan, A. & Bengü, H. & Özdemir, F.S. (2010). Muhasebe Meslek Mensuplarının Güncel Sorunları, Uygulamada Karşılaştıkları Yetersizlikler ve Meslek Odalarından Beklentilerinin Unvanları ve Mesleki Deneyim Süreleri Yönüyle İncelenmesi: Türkiye Geneline Bir Araştırma (Current Problems of Professional Accountants, Deficiencies in practice they encounter and The titles of the expectations of the Professional Chamber and Examination of the Aspect Professional Experience: Case of Turkey), *Muhasebe ve Denetim Bakış*, 31, 41-64.

*Serbest Muhasebecilik, Serbest Muhasebeci Mali Müşavirlik ve Yeminli Mali Müşavirlik Kanunu Disiplin Yönetmeliği (Independent Accountants, Certified Public Accountant and Chartered Accountant Law Disciplinary Regulations)*. Retrieved August 15, 2015, from [https://www.tesmer.org.tr/index.php?option=com\\_content&view=article&id=93&Itemid=101](https://www.tesmer.org.tr/index.php?option=com_content&view=article&id=93&Itemid=101)

Uzay, Ş. & Tanç, Ş.G. (2004). Muhasebecilerin Sorunları ve Beklentileri: Kayseri ve Nevşehir İlleri Uygulaması (The Problems Faced by the Accountants and Their Expectations: Kayseri and Nevşehir Sample). *Muhasebe ve Finansman Dergisi*. 22, 94-104.

Yereli, A.B. (2006). Muhasebe Meslek Mensupları Anketi: Mesleki Profil, Sorunlar, Çözüm Önerileri (Accounting Professionals Survey: Occupational Profile, Problems, and Solutions). Retrieved December 10, 2010, from [http://www.alomaliye.com/agustos\\_06/muhmeslek.htm](http://www.alomaliye.com/agustos_06/muhmeslek.htm).



# **The Fourth Industrial Revolution and Expectations Related to Workforce**

Ari Kovanci

## **1. Introduction**

There are increasingly widespread views about the fact that we are in the beginning of a new industrial revolution. The revolution is expected to bring about many changes in economic, social, legal and political life. From this point of view, it is worthwhile to emphasize what needs to be done in terms of putting forth the process and the innovations it brings and adapting this process.

The aim of the work is to look for expectations related to workforce in the context of the fourth industrial revolution and what needs to be done for the meeting of these expectations. In this context, firstly fourth industrial revolution and new technologies on which this revolution is based are emphasized. Then, the role of the workforce in the process of the implementation of the fourth industrial revolution is mentioned. Finally, it is emphasized that the necessary labor force needs to be addressed in order for the countries and, if necessary, the enterprises to adapt to the fourth stage of industrialization, and various suggestions are given in this respect.

## **2. The Fourth Industrial Revolution**

The industrial revolution, seen as the starting point of the economic, social and political relations of these days is historically regarded as a turning point for societies. The multidimensional effects that have emerged in connection with the industrial revolution have caused a radical change in economic, social, legal and political life (Görçün, 2016).

It is possible to deal with the industrial revolutions of the period in the process from past to present. The first is the first industrial revolution, which started in the early 1760s, characterized by the discovery of steam power, the expansion of railway transport and the mechanization of production. The second industrial revolution was evident in the 1890s with new techniques in production such as increased use of electricity, assembly line and serial production. The third industrial revolution that began in the 1960s came about with the widespread use of computers and internet. At present, it is possible to express that we are at the beginning of a fourth revolution. This revolution is based on the digital technologies of the third industrial revolution and is characterized by a wide range of innovations in the digital field such as artificial intelligence, that is, the biological field and the physical field (World Economic Forum, 2017).

The concept of the fourth industrial revolution (or "Industry 4.0" as it is often expressed) was first used in the Hannover Exhibition in Germany in 2011 (Schwab, 2016), where we have witnessed a shift towards the factory today, using steam power in terms of production processes. New technologies production devices that are able to communicate with each other such as cyber physical systems, internet, intelligent factories, artificial intelligence, three-dimensional printers, large data, cloud computing, autonomous robots and next generation mobile internet technologies are taking the lead in the fourth industrial revolution (Özdoğan, 2017). Indeed, it is possible to state that the fourth stage of the industrialization we are really starting with is from many technologies and new combinations that they have created among themselves, and from this point of view, the fourth industrial revolution, knowledge, communication, internet, data collection and dissemination technologies are integrated with new production possibilities (Banger, 2017).

Nevertheless, the concept of the fourth industrial revolution can be described as the flexible production process, in which each part of the supply chain works in an integrated manner with each other and is called intelligent production. In this sense, it is possible to say that with the recent industrial revolution, the manufacturing industry wants to be equipped with internet technology to increase its productivity. Future production involves personalized production, that is, personalized production, in which production is created in the design and creation of added value in the initial stages of production by customers and business stakeholders (Kabakarlı, 2016).

The main aim of the fourth industrial revolution, which is rapidly gaining widespread in the process we are in, is the misinterpretation of clever factories that have self-managing production processes without the need for human power. In the process, it is seen that hybrid technologies that are produced by the blending of computer, communication and internet technologies have an important place (Önday, 2017). In this sense, not only people but also machines and equipments communicate with each other and fulfill their functions in this communications framework, so that autonomous systems, which are largely independent of the people, will experience a near-term when we cover almost all phrases of production and supply chains besides our lives, and that they fulfill their functions in this communication framework so that autonomous systems that are largely free from human beings can be found in almost all of our production and supply chains there is a widespread opinion that there will be a near-immediate period in which all stages are covered (Görçün, 2016).

The handling of the focal points of the process of technological change that we like with the fourth industrial revolution or another name can provide important predictions about the potential effects of the process and the developments that may occur later on. At the same time, such as a point of view may be useful in determining expectations about your future workforce and the skills that it requires. In this context, first of all, one of the most prominent features of this new technological era is that it should be linked in such a way that it will become a value chain of devices, machines, sensors and information communication systems. This chain is not confined to a single business, but connects other components of the business' ecosystem. Devices and machines that work in conjunction with each other in the context of the fourth industrial revolution are called cyber physical systems. Cyber physical systems enable the analysis of faults in the system and discovery of source causes to stop unexpected interruption of workflow, changing parameters and working status depending on changing conditions. Newly-renovated machines use some of the data they acquire through sensors to organize their own work, while some send data to the cloud computing depot, where data extractions take place for further analysis and evaluation. The aim of this process is to improve consumption and reduce costs while at the same time creating more flexible, faster, uninterrupted and efficient processes. In this context, it has led to some questions about what features the worker should have on the right, one of the most important factors of production, even when the latter is in operation (Banger, 2017).

Secondly, internet of things from the elements of the driving force of the fourth industrial revolution (Schwab, 2016) is the transfer of data from an object, that is, from a device, from a smart reader, from a machine, from an object or from a human, to other systems through a network. It is possible that intelligent readers can transmit data to the relevant system by embedding data into many devices, transmitting data over wireless readers and the network, and without requiring additional human intervention. Future factories are focused on how these and similar applications can be used intensely (Özdoğan, 2017). Indeed, the fourth industrial revolution strategy requires the use of the internet of objects and the internet, much more than the old one, in the interaction between people and machines in the realization of the rational production (Kabaklarlı, 2016).

Thirdly, the factories that make up the production systems of the rational factories in which the fourth industrial revolutionary practices are carried out are the factories which function autonomously and in communication with each other. it seems that factories, unlike traditional factories, are trying to be structured so that they will intervene when an extraordinary situation occurs. In this sense, machines, robots and other equipment in an ordinary process exhibit an autonomous nature. Smart factories already created in its entirety system of advanced technological developments, in the case of a communication continuum with external factors, real-time data obtained with this aspect are systems that can be used effectively in the production process. Energy consumption, material flows are the key elements of real-time data-intensive factories for customers' orders and suppliers (Görçün, 2016).

Fourthly, another one of the elements of the industrial revolution (Davutoglu, Akgül & Yıldız, 2017) is an artificial intelligence, which will shape the future industrial production. Artificial intelligence is a scientific discipline that aims to enable machines to have the ability to reason, utilize past knowledge, plan, absorb, communicate, perceive, move objects and relocate. Machine learning algorithms, based on artificial intelligence applications enable computers to make decisions using experiences they have gained up to that moment such as when have never met before. With artificial

intelligence, it has been attempted to ensure that robots or machines have the ability to make a part of human behavior, such as decision-making and communication. However, in the future it is foreseen that artificial intelligences will communicate in a meaningful way among themselves (Öztuna, 2017).

Fifth, three-dimensional printers are the machines that transform digital three-dimensional computer data into real objects that can be held by hand. All mechanical parts except the electronic parts and motors can be printed with three-dimensional printers. It is envisaged that these devices, which can be used in all kinds of jobs from medical to industry, from city planning, to food significantly have an important place in production and innovation. With these printers bringing revolutionary changes and innovations in production technology, creative ideas, and designs can be quickly transformed into real models, end products, pieces or prototypes (Davutoğlu et al., 2017). From this point of view, it is possible to express that the products made with the three-dimensional printer which are different from the manufactured goods produced in series are very easily customizable to the wishes of the costumers (Schwab, 2016).

Finally, large data which is one of the pillars of the fourth industrial revolution is the method of obtaining and using electronic data obtained through machines, devices and services. Governments, businesses and institutions use this method for different purposes (Kabaklarlı, 2016). Large data; such as logs from web servers, internet statistics, social media publications, blogs, microblogs, information from climate sensors and similar sensors, and call records from GSM operators. It is required to collect data from many different sources with large data and to evaluate these data in a comprehensive manner. Thus, it is aimed to increase the quality of the production, to save energy and to facilitate the maintenance of the equipment. However, when large data is interpreted with accurate analysis methods, it is of great importance to increase competitiveness in this process in order to ensure that enterprises take strategic decisions in accordance with their objectives, better manage their risks and innovate (Davutoğlu et al., 2017).

In this context, when the mentioned technologies which the fourth industrial revolution is based on the point of view of their working life, opinions about how we are in the beginning are going to have a significant impact on many fields, from working conditions, new professions, employment, social security system or unionism (Öztuna, 2017).

From this point of view, it is possible to look at the effects of the fourth industrial revolution in general in this study: (i) It takes the place of traditional power plants based on machines and intelligent factories that are dominated by intelligence. (ii) From serial production to special production and intelligent products according to customer needs (iii) production can be done even in houses by means of three dimensional printer, and each consumer turns into a producer at the same time. (iv) real-time data and information exchange of production facilities and products. The defect and the margin of error in the production are minimized. (v) Raw materials and resource consumption are reduced the most, productivity increases and energy can be used more efficiently. (vi) Thanks to self-organizing production processes, the need for production resources (energy, human, machine, etc.) is reduced, and robots and machines are becoming the production processes. (vii) The employment structure is changing when the spread of the robots reduces the need for body power and the mind power is brought to the forefront. As a consequence of this process, it is expected that some types of professions will gradually disappear and new career professions will appear (Aegean Region Chamber of Industry Research Directorate, 2017).

### **3. Fourth Industrial Revolution and Expectations Related to Workforce**

It is expected that the fourth industrial revolution and the developments it brings together will have a significant effect on both daily life and working life. Considering the effects on the competitive environment of the rapid change experienced in this process, it is possible to say that maintaining adaptation to change is usually done in a similar way to maintaining entities in the enterprise. From this point of view, innovations and technological developments brought about by the fourth industrial revolution in terms of enterprises have to put into practice. First of all, it is important to determine the changes in question and to determine what needs to be done in order to realize them. In this sense, it is emphasized that a detailed strategy should be followed in order to have knowledge about the changes

that the fourth industrial revolution will bring about and to adapt to these changes (Aegean Region Chamber of Industry Research Institute, 2017).

Businesses should have developed their structural characteristics in order to be able to adapt to the process of the fourth industrial revolution and to fulfill the process required by this process (Görçün, 2016). In this context, it emphasizes that in addition to new technologies in the process of establishing new working and life conditions from the fourth stage of industrialization we are in the beginning, the workforce to transform and use these technologies and develop them will play an important role (Banger, 2017).

Indeed, workforce has an important role in the realization of the implementation of the fourth industrial revolution (Öztuna, 2017). It is at the forefront of the most important issues that the workforce can develop and use new technological elements in the process of the fourth industrial revolution. If the businesses do not have the potential to develop technologically, or if there are various constraints that may arise depending on the factors of production, it may be difficult to fulfill the requirements of the fourth industrial revolution process (Görçün, 2017).

On the other hand, robotic systems used in intelligent factories during the fourth industrial revolution are expected to lift the need for human power to a large extent (Görçün, 2016). However, in the course of the fourth industrial revolution, it is emphasized that automation systems and robots are able to take care of the higher value-added activities of the workforce, taking the responsibility of the employees, which leads to the inefficiency of the labor force (Öztuna, 2017).

With the fourth industrial revolution, it is expected that product and service development processes will instantly enable product innovation in a personalized manner, and even an innovation in which customers are involved in the product development process. In this sense, it emphasizes that in the course of the fourth industrial revolution, workers will spend their intellectual work, rather than muscle power (Öztuna, 2017). In this sense, it is emphasized that especially the new technologies will have the relevance to the required workforce (ie the generally specialized workforce) as well as the change of the skills required in this process. The advanced manufacturing industry requires employees with multidisciplinary competencies that combine mechanics, electronics, software knowledge and skills (United Nations Industrial Development Organization, 2013).

Indeed, new roles are emerging throughout the value chain in knowledge management, and new computer modeling simulation tools and data analysis increasingly require analytical expertise. As processes and machines become increasingly interdependent, sophisticated systems of thought and cyber security skills become more important. At the same time, skills are becoming more important in real-time decision-making as it is the knowledge of international standards. In general, it is possible to say that it is now possible to provide all the benefits of collecting when significant innovations can be placed by technicians, engineers and managers in new product, process and manufacturing systems at an industrial scale. However, jobs created in the manufacturing industry are expected to boost demand for a workforce equipped with mixed skills, including deep technical expertise (United Nations Industrial Development Organization, 2013).

In this context, it is expected that the demand for high quality labor will increase with the widespread use of new technologies in the context of the fourth industrial revolution. (Banger, 2017). Among the qualities expected of a workforce to work in your future factory are; information systems capabilities and capabilities, data and information processing competence and analytics, statistical knowledge accumulation, organizational state, and business processes through well-meaning modern interfaces (such as human-robot interfaces). (Özdoğan, 2017). However, it emphasizes that skills such as technology use, problem solving, adapting to new situations, flexibility, co-creativity and creativity are important for the workforce (Banger, 2017).

However, at this stage of industrialization, it is stated that creativity is important for an employee to produce new products or to be successful in discovering or using new technologies (Öztuna, 2017). Indeed, it is expected that a significant portion of the employment created in this process will be in high-income cognitive and creative jobs, but that employment in routine and repetitive jobs at middle-income levels will decline dramatically (Schwab, 2016). Other expectations about your future workforce

include individual time management, rapid response and clarity of change, dominance and predisposition to teamwork, and social and communication skills (Özdoğan, 2017).

#### **4. Fulfillment of the Labor Force Expectation in the Fourth Industrial Revolution**

It is important that the fourth industrial revolution should determine the development points of the development and change in order for the countries and the enterprises to adapt to the process and to put forward the effect on the labor force in the long term (Aegean Region Chamber of Industry Research Directorate, 2017). However, the ability to predict the need for knowledge and skills to adapt to this process, which affects both daily life and working life, has become a necessity for all stakeholders (Schwab, 2016). In terms of adaptation to changes in production and technology, it emphasizes the need to set priorities and improve the quality of the workforce (Aegean Region Chamber of Industry Research Directorate, 2017). Indeed, in this process the knowledge within the fourth industrial revolution is characterized as one of the hurdles to overcome the need for skilled labor to use communication, design, production and management systems (Banger, 2017).

Depending on the possible effects of technological developments in the context of the fourth industrial revolution, the preparation of the current and new workforce for the conditions of the next period is one of the issues to be emphasized. However, it emphasizes that while the skills and abilities of the workforce in the factory of the future are being improved, they must be supplemented with innovations (Banger, 2017).

While the expectation that the industrialization will be experienced at this stage varies considerably from the sector to the sector, having the necessary skills in the workforce in the different sectors has an important priority, but also has various difficulties (European Commission, 2016). The need for intellectual power during the fourth industrial revolution brings with it the necessity of increasing the level of education and quality first of all. In this context, it is possible to discuss education as one of the most important elements in meeting expectations of your future workforce. At this stage of industrialization; it is important to establish an educational infrastructure suitable for the fourth industrial revolution with preparations such as the provision of a qualified workforce capable of producing and using intelligent machines and intelligent products, the training of specialized production engineers, the construction of perceptible cyber physical systems, and the updating of curricula from primary school to university (Aegean Region Chamber of Industry Research Directorate, 2017).

It emphasizes that education systems need to be restructured in accordance with new technology (Banger, 2017). Important suggestions are given in order to create stronger education systems within the scope of the study on the realization of the human potential in the Fourth Industrial Revolution, which was developed by the World Economic Forum with in-depth consultations with field experts and practitioners. It is possible to handle them in the following way: (i) Increasing access to early childhood education; (ii) Ensuring that the education program is organized to include preparations for the future; (iii) Providing a specialized workforce in terms of employment in the field of education and investing in the development of this workforce; (iv) Career guidance; (v) Investment in the development of literacy skills in information and communication technologies; (vi) Provision of qualified vocational and technical education and training; (vii) Creation of a lifelong learning culture; (viii) It is open to innovation in education (World Economic Forum, 2017).

On the other hand, the effects and transformation of the fourth industrial revolution are not limited to only existing factories, technology or workers. It is emphasized that it is necessary to prepare the next generations to this industrial revolution. In this context, it is stated that the IFor example, it is expressed that more data workers can be trained in relation to the future turnaround, especially if the literacy of the information technology studied is given in early education. However, in the near future it emphasizes the need for people who can read the interfaces well, depending on whether they are in constant contact with humans and robots or machines. Nevertheless, it is important to communicate knowledge-related issues in early education in order to be a good new-generation factory worker and to use technology appropriate to the fourth industrial revolution. It is emphasized that in



order to be able to adapt to all intelligent technologies, to be able to understand easily and learn rapidly, it is necessary to educate early age of meeting with information systems (Özdoğan, 2017).

Technological changes expected to shape the future of the manufacturing industry in the course of the fourth industrial revolution are expected to come to the forefront of qualified and multi-faceted employees due to the transformation of the workforce's skills to be possessed (United Nations Industrial Development Organization, 2013). Earning of various concepts should be reduced to early education and even primary school level. In this sense, it is of great importance that the world of work, the labor market regulators and workers' trade unions correctly identify the knowledge, skills and level possessed at present and develop policies for the future against possible problems that may arise in terms of meeting their skill needs (Öztuna, 2017).

On the other hand, in the course of the fourth industrial revolution, integration between universities and businesses is required. The fact that individuals who will graduate from college and participate in the labor market have the knowledge and accumulation that can adapt to the fourth industrial revolution is becoming important in this process. However, it is necessary for employees of the human resources departments in the workplace to continually plan training programs on new technologies and to give immediate feedback on the results of the training (Öztuna, 2017). In this respect, it is expected that the production of high quality, high value added products will be more important in terms of businesses than the mass production. In this process, in order to achieve a successful transformation of the enterprises, the focus is placed on the customers (Davutoglu et al., 2017).

## 5. Conclusion

The fourth industrial revolution in the study and the changes that are expected to take place due to this revolution have been included. The role of the workforce in dealing with the process of the fourth industrial revolution, which had recently begun, was death with. In this process, it is emphasized that the expected characteristics of the workforce in the production and use of new products and technologies, which are one of the decisive factors in achieving competitive advantage.

In this context, there are various expectations regarding the level of knowledge, skills and qualifications that the current workforce, or the next generations to participate in the working life, can adapt to this new technological turnaround we are at the very beginning. From this point of view, it is important to increase the level and quality of education in order to meet the expectations, and to prepare future generations in accordance with this process. Nevertheless, all actors of the working life must play an active role in meeting the expectation of the workforce in this process.

## 6. References

- Banger, G. (2017). *Endüstri 4.0: Ekstra [Industry 4.0: Extra]*. Ankara: Dorlion Yayınları.
- Davutoğlu, N. A., Akgül, A., & Yıldız E. (2017). İşletme Yönetiminde Sanayi 4.0 Kavramı ile Farkındalık Oluşturarak Etkin Bir Şekilde Değişimi Sağlamak [Economic Effects of Restructuring on Businesses and Sectors in Accordance with National industry 4.0]. *The Journal of Academic Social Science*, 52, 544-567.
- Ege Bölgesi Sanayi Odası Araştırma Müdürlüğü Aegean Region Chamber of Industry Research Directorate. (2017). *Sanayi 4.0: Uyum Sağlamayan Kaybedecek*. İzmir: Ege Bölgesi Sanayi Odası.
- European Commission. (2016). *Accelerating the Digital Transformation of European Industry and Enterprises: Key Recommendations of the Strategic Policy Forum on Digital Entrepreneurship*. Brussels: Strategic Policy Forum.
- Görçün, Ö. F. (2016). *Dördüncü Endüstri Devrimi Endüstri 4.0 [The Fourth Industry Revolution Industry 4.0]*. İstanbul: Beta Yayıncılık.
- Kabaklı, E. (2016). *Endüstri 4.0 ve Paylaşım Ekonomisi Dünya ve Türkiye Ekonomisi İçin Fırsatlar, Etkiler ve Tehditler*. Ankara: Nobel Akademik Yayıncılık.
- Önday, Ö. (2017). *Dijital Dönüşüm [Digital Transformation]*. Ankara: Gazi Kitabevi.

Özdoğan, O. (2017). *Endüstri 4.0 Dördüncü Sanayi Devrimi ve Endüstriyel Dönüşümün Anahtarları [Industry 4.0 Fourth Industrial Revolution and the Keys of Industrial Transition]*. İstanbul: Pusula 20 Teknoloji ve Yayıncılık.

Öztuna, B. (2017). *Endüstri 4.0 (Dördüncü Sanayi Devrimi) ile Çalışma Yaşamının Geleceği [The Future of Working Life with Industry 4.0 (Fourth Industrial Revolution)]*. Ankara: Gece Kitaplığı.

Schwab, K. (2016). *Dördüncü Sanayi Devrimi [The Fourth Industry Revolution Industry]*. Çev. Zülfü Dicleli. İstanbul: Optimist Yayın Dağıtım.

United Nations Industrial Development Organization. (2013). *Emerging Trends in Global Advanced Manufacturing: Challenges, Opportunities and Policy Responses*. Cambridge: Policy Links.

World Economic Forum. (2017). *The Future of Jobs and Skills in the Middle East and North Africa: Preparing the Region for the Fourth Industrial Revolution*. Switzerland: World Economic Forum.

World Economic Forum. (2017). *ASEAN 4.0: What does the Fourth Industrial Revolution mean for Regional Economic Integration?* Switzerland: World Economic Forum.



# **The Impact of Tourism Students' Personalities on Their Service Orientations**

Tugrul Ayyildiz, Ahu Yazici Ayyildiz, Huseyin Erhan Altun

## **1. Introduction**

All the cognitive, behavioral and emotional characteristics that distinguish a person from other individuals are expressed by the concept of personality (Erkuş, 1994). According to Holland (1976), people choose the professions that are appropriate for their personality traits, which is positively reflected to their work performance (Serçeoglu, 2013).

Service orientation is accepted as an element or dimension of personality by many scientists. Recruiting individuals with a high level of service orientation into the enterprise is an important for the enterprise to maintain its survival and reach its goals. Recruiting individuals with a high level of service orientation into the enterprise will bring in the employees that can learn quickly and act independently (Kuşlivan & Eren, 2011).

Professional preferences of the individuals and the elements that are effective on these preferences are of the important issues that attract the interest of the researchers carrying out studies related to vocational education. Due to the fact that profession choice has a significant place among the preferences that individuals make throughout their lives, this issue is of great interest to researchers. Choosing an appropriate profession for the individual will have positive effects on his happiness and success. An individual's awareness of selecting his profession willingly by being conscious about the working conditions and working areas will enable him to perform as required. Not only will this situation lead to the satisfaction of the individual but also to the satisfaction of the individuals receiving the service (Seymen et al., 2017).

In this respect, the main purpose of this study is to reveal the impact of tourism students' personalities on the service orientations.

## **2. Personality**

The concept of personality is said to be derived from the Latin word "persona", which is used in the meaning of "mask". "Persona" was regarded as a reflection of the characteristics of the character in the role rather than the real person behind the mask. Over time, the attitude and behavioral characteristics of the person happened to be comprehended with this concept (Aslan, 2008). Today, it is possible to define "personality" as the sum of the individual's peculiar and distinctive characteristics (Morgan, 2005). According to another definition, personality is the result of emotions and thoughts that the individual demonstrates towards his or her social environment (Bastem & Şeker, 2017). Personality is also expressed as the sum of all the tendencies that the individual has inherited and subsequently acquired. Within this context, establishing a relationship between the inherited and subsequently acquired, and organizing and managing them is an important feature that distinguishes the individual from other individuals (Kurt & Nartgün, 2014).

Among the models developed for personality, the Five Factor Personality Inventory developed by Costa and McCrea (1992) is frequently used in the marketing and management literature. The inventory was created by reducing thousands of adjectives that characterizes the individuals to five dimensions. This model, which has been attracting attention for many years by countless academicians, has continued to develop even today and gained the trust of the researchers due to this characteristics (Yelboğa, 2006). The model is composed of five main dimensions reduced from plenty of adjectives that define individuals. It is possible to express these five factors as follows (Barrick & Mount, 1991; Rothmann & Coetzer, 2003).

- **Extroversion:** Individuals with an extrovert personality type are the ones that are friendly, energetic, cheerful, looking for excitement and dominant, expressing what they think frankly, assertive, leading, and outgoing. Introvert individuals are, unlike extrovert individuals, those who are distant, calm, preferring loneliness and remaining in the background.

- **Agreeableness:** These people are involved in this dimension as they are the individuals that are eager to collaborate, sincere, tactful, trustworthy, courteous, straightforward and humble. They show compromising behaviors when they face problems, and avoid conflict between people and competition. Individuals who are skeptical, hard-headed, stubborn, competitive, prudent, aggressive, hostile, and indifferent to others have lower agreeableness score.
- **Emotional Stability:** Individuals with emotional stability personality types are involved in this dimension because they are comfortable, self-confident, patient, open to criticism, and stress-tolerant individuals. Individuals who are the opposite of emotional stability behavior exhibit neurotic personality traits. The most prominent features of neurotic personality traits are being worried, tense, shy, anxious, insecure, and depressed. Neurotic individuals are quite unsuccessful in setting up and maintaining a healthy communication with the individuals around them.
- **Openness:** Individuals with an openness personality type are highly open to development, creative, analytic, open to other people's views, sensitive, imaginative, adventurous, original, curious, oriented to their own feelings and thoughts, and have a broad intellectual curiosity. The ones with a lower openness personality are the individuals that are regarded as traditional, conservative, defending the facts, indifferent.
- **Conscientiousness:** Individuals who are careful, systematic, determined, success-oriented, ambitious, ambitious, meticulous, dedicated to ethical principles, and patient are those with a high score of conscientiousness. Due to the fact that these individuals are responsible and exhibit determined behaviors, it is easy for them to achieve their goals. Individuals who are unplanned, eager to postpone, easily distracted, untidy, decision-making quickly, not very stucked to rules, and messy have lower conscientiousness dimension scores.

### 3. Service Orientation

Service orientation is an extensively studied phenomenon which is a concept dealt both at the organization and at the individual level in the marketing and management literature (Teng & Barrows, 2009). The significance of the concept stems from the inevitable interaction of consumers and service providers, especially in the service enterprises. This interaction has a share in the competitive edge of the enterprises by significantly affecting customer satisfaction and loyalty (Kuşluvan et al., 2010). When tourism enterprises are the point in question, this mutual interaction can have vital importance, especially in the hospitality industry (Pizam, 2012).

By definition, service orientation is; customer orientation (Hogan et al., 1984), the willingness to provide service and the ability to communicate interpersonally (Kuşluvan & Eren, 2011), or the sum of the features that will make a relational process available, which provides mutual benefits by creating solutions to the problems that consumers experience (Saxe & Weitz, 1982).

It is expressed that personality traits and external factors have influence on the service orientation. The relationship between such personality traits as conscientiousness, agreeableness, extroversion, and emotional stability and service orientation was revealed in various researches (Pizam, 2012). In addition to this, it is also stated that the society and organizational culture, as external factors, are also influential on service orientation (Kuşluvan & Eren, 2011).

Several scales were developed so as to measure service orientation (for example: Brown et al., 2002; Donovan et al., 2004; Sanchez & Fraser, 1993; Dienhart et al., 1992). The Service Orientation Inventory developed by Donovan et al. (2004) was developed on the basis of observable personality traits. The four dimensions of the scale were; the need to make the customers feel special and important, the need to understand the needs and desires of the customers, the desire to provide service for the customers successfully, and the need to build personal relationships with the customers (Başoda, 2012).

Service orientation has important implications in terms of both the individual and the organization. Individual effects include such studies including the variables as employee performance, job satisfaction, continuance, organizational commitment and citizenship, turnover intention, role conflict and uncertainty; organizational effects include such studies including the variables as service quality, customer satisfaction and loyalty (Başoda, 2012; Kim et al., 2005; Donovan et al., 2004).

#### 4. The Purpose and Significance of the Study

Tourism employees are constantly in contact with the customers as they work in the service industry. This situation affects the satisfaction of the customers directly. Therefore, service orientations of tourism employees will also affect customer satisfaction directly. Tourism students work in different fields within the tourism industry. For this reason, tourism students' service orientations are important both for the enterprises and customers and for the continuance of the students in this profession. The main purpose of this study is to reveal the impact of tourism students' personalities on their service orientations. The sub-purpose of the study is to reveal whether there is a significant difference between the students' service orientations according to some demographic features.

#### 5. Research Method

The study is in the relational screening model. A questionnaire was used as the data collection tool in the study. The first section of the questionnaire included questions that involved the demographic features of the participants. In the second section of the questionnaire, a ten-item scale developed by Samuel D. Gosling, Peter J. Rentfrow and William B. Swann Jr. (2003) and adapted into Turkish language by Atak H. (2013) was used. In the third section of the questionnaire, a thirteen-item scale developed by D. Todd Donavan, Tom J. Brown and John C. Mowen (2004) and used by Başoda A. (2012) was used in order to determine the students' service orientations. In line with the responses obtained from the sample, the reliability of the scales was measured by Cronbach's alpha coefficient and these values were found as 0,631 for the personality scale and as 0,904 for the service orientation scale. These values indicate that the scales are highly reliable (Özdamar, 1999).

The population of the research was composed of the tourism students studying at Adnan Menderes University School of Tourism and Hotel Management and Faculty of Tourism. Purposeful sampling selection was made from the population and a total of 455 students were reached.

#### 6. Research Findings and Evaluation

The answers given to the questionnaire collected from 420 students were evaluated by SPSS for Windows 18.0 statistical package programme. Whether the data was coded accurately was provided by comparing descriptive statistics, questionnaires and the values coded.

##### 6.1. Personality Scale Factor Analysis

The Personality Scale developed by Samuel D. Gosling, Peter J. Rentfrow and William B. Swann Jr. (2003) and adapted into Turkish by Atak H. (2013) was composed of 10 items and 5 dimensions. Before factor analysis was performed for the personality scale, reliability analysis was performed on the variables. In the first reliability analysis, the overall reliability of the scale was found as ,493. Reliability analysis was performed by excluding 4 items from the scale decreasing the reliability and the Cronbach alpha value of the scale was found as ,631, which indicated moderate level of reliability (Özdamar, 1999). Factor analysis was performed on the remaining 6 items. As a result of the Keyser-Meyer-Olkin Test obtained by factor analysis, the sample adequacy value was found as ,727, which is an appropriate value for factor analysis (Büyüköztürk, 2003). The Bartlett's Sphericity Test was used for the adequacy and significance of the correlation matrix. The adequacy and significance of the correlation matrix was found as ,000 and 275,132 and these values were regarded as acceptable for performing factor analysis. As a result of the factor analysis performed, two dimensions were found as different from the original scale and these dimensions were named as introversion and extroversion.

**Table 1:** Personality Scale Factor Analysis

	<b>Factor Loads</b>	<b>Eigenvalue</b>	<b>Explained Variance</b>	<b>Cronbach Alpha</b>
<b>INTROVERSION</b>		<b>2,148</b>	<b>35,798</b>	<b>0,432</b>
Introversion 1	,645			
Introversion 2	,485			
Introversion 3	,795			
<b>EXTROVERSION</b>		<b>1,057</b>	<b>17,622</b>	<b>0,606</b>
Extroversion 1	747			
Extroversion 2	,669			
Extroversion 3	,748			

All of the factor load values were above ,485. Varimax rotation was used in the analysis of the data. In the factor analysis, the data with an eigenvalue greater than 1 was taken into evaluation. When the factor matrix was evaluated, it was seen that the variables were united under 2 factors and that these 2 factors explained 53,420% of the total variance. These values indicated that the 2 factors were capable of explaining the variance explained by 6 variables. In the analyses in terms of the subsequent personality scale, two dimensions were used.

## 6.2. Service Orientation Scale Factor Analysis

The Service Orientation Scale developed by D. Todd Donavan, Tom J. Brown and John C. Mowen (2004) and used by Başoda A. (2012) was composed of 13 items and 4 dimensions. Before factor analysis was performed for the service orientation scale, reliability analysis was performed on the variables. In the first reliability analysis, the overall reliability of the scale was found as ,904, which showed a high level of reliability (Özdamar, 1999). Factor analysis was performed on these 13 items. As a result of the first factor analysis, 1 item was excluded from the analysis as the item had a very similar value in two dimensions and factor analysis was performed again. As a result of the Keyser-Meyer-Olkin Test obtained by factor analysis, the sample adequacy value was found as 0,894, which is an appropriate value for factor analysis (Büyüköztürk, 2003). The Bartlett's Sphericity Test was used for the adequacy and significance of the correlation matrix. The adequacy and significance of the correlation matrix was found as ,000 and 2287,770 and these values were regarded as acceptable for performing factor analysis. As a result of the factor analysis performed, three dimensions were found as different from the original scale and these dimensions were named as the need to serve successfully, the need to make them feel special, and the need to understand customer needs.

**Table 2:** Service Orientation Scale Factor Analysis

	<b>Factor Loads</b>	<b>Eigenvalue</b>	<b>Explained Variance</b>	<b>Cronbach Alpha</b>
<b>THE NEED TO SERVE SUCCESSFULLY</b>		<b>5,620</b>	<b>46,832</b>	<b>0,797</b>
The need to serve successfully 1	,765			
The need to serve successfully 2	,755			
The need to serve successfully 3	,688			
The need to serve successfully 4	,675			
The need to serve successfully 5	,647			
<b>THE NEED TO MAKE THEM FEEL SPECIAL</b>		<b>1,237</b>	<b>10,311</b>	<b>0,814</b>
The need to make them feel special 1	,859			
The need to make them feel special 2	,794			
The need to make them feel special 3	,741			
The need to make them feel special 4	,510			
<b>THE NEED TO UNDERSTAND CUSTOMER NEEDS</b>		<b>1.052</b>	<b>8,769</b>	<b>0,787</b>
The need to understand customer needs 1	,875			
The need to understand customer needs 2	,810			
The need to understand customer needs 3	,643			

All of the factor load values were above ,510. Varimax rotation was used in the analysis of the data. In the factor analysis, the data with an eigenvalue greater than 1 was taken into evaluation. When the factor matrix was evaluated, it was seen that the variables were united under 3 factors and that these 3 factors explained 65,912% of the total variance. These values indicated that the 3 factors were capable of explaining the variance explained by 6 variables. In the analyses in terms of the subsequent service orientation scale, three dimensions were used.

### 6.3. The Difference in Terms of Gender and Whether They Chose the Profession Willingly

The hypothesis established so as to determine whether there was a significant difference between the participants' service orientations according to such demographic characteristics as the gender and whether they chose the profession willingly is as follows:

H<sub>0</sub>: There is no significant difference between the students' service orientations according to gender and whether they chose the profession willingly.

H<sub>1</sub>: There is a significant difference between the students' service orientations according to gender and whether they chose the profession willingly.



**Table 3.** T-test Results in Terms of the Students' Service Orientations According to Their Gender and Whether They Chose the Profession Willingly

		Levene's Test for Equality of Variances	t-test for Equality of Means	
Gender		Sig.	T	Sig. (2-tailed)
The Need to Serve Successfully	Equal variances assumed	,193	903 <sup>1</sup>	,367
	Equal variances not assumed		907 <sup>1</sup>	,365
The Need to Make Them Feel Special	Equal variances assumed	,628	546 <sup>1</sup>	,123
	Equal variances not assumed		547 <sup>1</sup>	,123
The Need to Understand Customer Needs	Equal variances assumed	,207	551 <sup>1</sup>	,582
	Equal variances not assumed		549 <sup>1</sup>	,583
Whether They Chose the Profession Willingly		Sig.	T	Sig. (2-tailed)
The Need to Serve Successfully	Equal variances assumed	,483	831 <sup>1</sup>	,407
	Equal variances not assumed		828 <sup>1</sup>	,408
The Need to Make Them Feel Special	Equal variances assumed	,707	619 <sup>1</sup>	,536
	Equal variances not assumed		620 <sup>1</sup>	,535
The Need to Understand Customer Needs	Equal variances assumed	,153	2040 <sup>2</sup>	,042
	Equal variances not assumed		2022 <sup>2</sup>	,044

According to the t-test in Table 3, as for the fact that sig. value was greater than ,050 in all factors, it was seen when the value of the first significance level for this factor was considered that the value was lower than ,050 in the need to understand customer needs sub-dimension only according to whether they chose the profession willingly variable. According to this, the hypothesis of "there is a significant difference between the students' need to understand customer needs according to whether they chose the profession willingly" ( $H_1$ ) was accepted. There was no significant difference among the dimensions of the students' service orientations, whether they chose the profession willingly, the need to serve successfully and the need to make them feel special sub-dimensions according to their gender. For these,  $H_0$  hypothesis was accepted..

**Table 3.1.** The Difference Status of the Need to Understand Customer Needs According to Whether They Chose the Profession Willingly

	N	Mean	
The Need to Understand Customer Needs	Yes	225	3,6696
	No	185	3,5009

When Table 3.1. was analyzed, it could be noticed that the students who loved the profession had higher scores of the need to understand customer needs when compared to the ones who did not love the profession.

#### 6.4. The Status of Service Orientation According to Gender, Class, Department and Achievement

Whether there was a significant difference between the students' service orientations according to their age, class, department and achievement was analyzed by ANOVA.

H<sub>0</sub>: There is no significant difference between the students' service orientations according to their age, class, department and achievement.

H<sub>1</sub>: There is a significant difference between the students' service orientations according to their age, class, department and achievement.

**Table 4.** The Status of Service Orientation According to Gender, Class, Department and Achievement

	GENDER		CLASS		DEPARTMENT		ACHIEVEMENT	
	F	Sig.	F	Sig.	F	Sig.	F	Sig.
The Need to Serve Successfully	6,19	0,94	2,82	3,14	,628	3,64	0,30	,741
The Need to Make Them Feel Special	6,77	2,54	6,09	1,35	5,74	9,13	8,41	,659
The Need to Understand Customer Needs	9,36	1,83	,675	8,56	,549	0,70	6,08	,918

There was no significant difference between the students' service orientations according to their age, class, department and achievement ( $p > .005$ ).

#### 6.5. The Impact of Personality on Service Orientation

In Table 5, the correlation table between the sub-dimensions of personality and those of service orientation was presented.

**Table 5.** Correlation Table for Personality Sub-dimensions and Service Orientation Sub-dimensions

	Extroversion	Introversion
The Need to Serve Successfully	,077	-,056
The Need to Make Them Feel Special	-,011	-,127**
The Need to Understand Customer Needs	-,034	-,130**

According to Table 5, there was a low level negative relationship between extroversion and the need to serve successfully, the need to make them feel special, and the need to understand customer needs sub-dimensions.

**Table 6:** Regression Analyses between Personality and Service Orientation

Independent Variable	Dependent Variable	Beta	t	R <sup>2</sup>	F	p
Extroversion	The Need to Serve Successfully	,097	2,158	,120	2,993	,051
Introversion		-,075	1,875			
Extroversion	The Need to Make Them Feel Special	,037	,802	,018	3,749	,024
Introversion		-,112	-,143			
Extroversion	The Need to Understand Customer Needs	,017	,326	,017	3,602	,028
Introversion		-,121	-,136			

As seen in Table 6, the model between personality sub-dimensions and the need to serve successfully sub-dimension of service orientation was found to be insignificant. Nonetheless, the models between personality sub-dimensions and the need to make them feel special and the need to understand customer needs sub-dimensions of service orientation were found to be significant ( $p < ,05$ ). However, for both dimensions, personality sub-dimensions explained the need to make them feel special, and the need to understand customer needs sub-dimensions of service orientation at a very low level ( $,018$  and  $,017$ ). When Beta values were examined, it was found that while introversion sub-dimension of personality negatively affected the need to make them feel special, and the need to understand customer needs sub-dimensions of service orientation, extroversion sub-dimension of personality positively affected the need to make them feel special, and the need to understand customer needs sub-dimensions of service orientation.

## 7. Conclusion and Discussion

There is a strong relationship between personality and service orientation. For most scientists, service orientation is accepted to be one of the components of personality traits or a dimension of personality. Depending on the personality traits of the individuals, some individuals tend to be more likely to serve when compared to others. Service orientations of the individuals make them serve the customers better by better communicating with them. According to many scholars, the personalities of the individuals can positively affect service quality, customer satisfaction, service behaviors, service skills and the performance of the service provider (Kuşluvan & Eren, 2011). In this study, it was aimed to reveal the impact of tourism students' personalities on their service orientations. Tourism students are an important potential for tourism. For this reason, tourism students that are important for tourism, personality and service orientation were brought together in this study.

In the study, factor analysis was applied to personality scale and service orientation scale. As a result of this factor analysis, both the personality scale and the service orientation scale differed from the original version. The original personality scale consisted 5 dimensions and the original service orientation scale consisted 4 dimensions. However, in the factor analysis, personality scale was found to be 2 dimensions and service orientation scale was found to be 3 dimensions. This may be due to the translation of the questionnaires into Turkish language, as well as the fact that the original scale was applied to different people. The fact that tourism students' situations were different and that the scale was applied in different regions could also cause the factors to differ.

The t-test and ANOVA were performed in order to determine if there were any differences between tourism students' service orientations according to some of their characteristics. As a result of these analyzes, it was revealed that there was a significant difference only between the students' need to understand customer needs according to whether they chose the profession willingly. It was

determined as a result of the analysis that those who loved their profession had higher levels of the need to understand customer needs when compared to those who did not love the profession. This is a natural consequence for the students as they are in the tourism industry. The fact that the students choose the profession and perform willingly may let them give more value to the customer.

The model between the sub-dimensions of personality and the need to serve successfully sub-dimension of service orientation was found to be insignificant. Nevertheless, the models between the sub-dimensions of personality and the need to make them feel special and the need to understand customer needs sub-dimensions of service orientation were found to be significant. Whether the individual is introvert or extrovert in terms of serving successfully may not have made any difference. Regardless of personality, every individual may have the desire to serve successfully and be successful.

This study was carried out on the students at Adnan Menderes University Faculty of Tourism. In the future researches, this content can be expanded. Conducting such a study on tourism employees will also contribute to the managers of tourism enterprises.

## 8. References

- Aslan, S. (2008). Kişilik, huy ve psikopatoloji. *Rewiews, Cases and Hypotheses in Psychiatry*, 2(1-2), 7-18.
- Barrick, M. R., & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. *Personnel Psychology*, 44, 1-26.
- Bastem K. (2017). Veri madenciliği yöntemleri ile twitter üzerinden MBTİ kişilik tipi analizi, *YBS Ansiklopedisi*, 4(2). 3-10.
- Başoda A. (2012). *Kişilik özelliği olarak hizmet verme yatkınlığının iş tatmini ve işten ayrılma niyeti üzerindeki etkisi: Konaklama işletmelerinde bir uygulama* (Unpublished Master Thesis) Nevşehir University, Nevşehir, Turkey.
- Brown, T. J., Mowen, J. C., Donovan, D.T. & Licata, J.W. (2002). The customer orientation of service workers: Personality trait effects on self and superior performance ratings. *Journal of Marketing Research*, 39(1), 110- 119.
- Büyüköztürk Ş. (2003). *Sosyal bilimler için veri analizi el kitabı*, Ankara: Pegem A Yayıncılık
- Dienhart, J. R., Gregoire, M. B., Downey, R. G. & Knight, P.K. (1992). Service orientation of restaurant employees. *International Journal of Hospitality Management*, 11(4), 331-346.
- Donavan, D. T., Brown, T. J. & Mowen, J.C. (2004). Internal benefits of serviceworker customer orientation: Job satisfaction, commitment, and organizational citizenship behaviors, *Journal of Marketing*, 68, 128-146.
- Hogan, J., Hogan, R., & Busch, C.M. (1984). How to measure service orientation. *Journal of Applied Psychology*, 69(1), 167-173.
- Kim, W. G., Leong, J. K. & Lee, Y. K. (2005). Effect of service orientation on job satisfaction, organizational commitment and intention of leaving in a casual dining chain restaurant. *International Hospitality Management*, 24(2), 171-193.
- Kurt, A., & Nartgün, Ş. S. (2014). Yönetici kişilik algısı ölçeği geçerlik ve güvenirlik çalışması. *International Journal of Human Sciences*, 11(1), 1238-1252.
- Kuşluvan, S., Kuşluvan, Z., İlhan, İ., & Buyruk, L. (2010). The human dimension: A review of human resources management issues in the tourism and hospitality industry. *Cornell Hospitality Quarterly*, 51(2), 171- 214.
- Kuşluvan, S., & Eren D. (2011). İşgörenlerin kişilik özelliği olarak hizmet verme yatkınlığı ve ölçümü: Bir literatür taraması. *Anatolia: Turizm Araştırmaları Dergisi*, 22(2), 139-153.
- Özdamar, K. (1999). *Paket programlar ile istatistiksel veri analizi*, Eskişehir: Kaan Yayıncılık.
- Morgan, C. T. (2005). *Psikolojiye giriş*. Ankara: Hacettepe Üniversitesi Psikoloji Bölümü Yayınları.
- Pizam, A. (2012). Service orientation in the hospitality context. *International Journal of Hospitality Management*. 31, 1-2.

Rothmann, S., & Coetzer, E. P. (2003). The big five personality dimensions and job performance. *SA Journal of Industrial Psychology*, 29(1), 68-74.

Saxe, R. & Weitz, B. A. (1982). The SOCO scale: A measure of the customer orientation of salespeople. *Journal of Marketing Research*, 19(3), 343-351.

Sanchez, J., & Fraser, S. (1993). *Development and validation of the corporate social style inventory: A measure of customer service skills*. (Report number 93-108) Cambridge, MA: Marketing Science Institute.

Teng, C. C., & Barrows, C. W. (2009). Service orientation: Antecedents, outcomes, and implications for hospitality research and practice. *The Service Industries Journal*, 29(10), 1413-1435.

Yelboğa, A. (2006). Kişilik özellikleri ve iş performansı arasındaki ilişkinin incelenmesi. *“İş,Güç” Endüstri İlişkileri ve İnsan Kaynakları Dergisi*, 8(2), 196-211.

# The Effects of Organizational Climate on the Employee Performance: The Mediating Role of Employees' Creativity\*

Bengu Hirlak, Gamze Ebru ciftci, Orhan Balikci

## 1. Introduction

Businesses are required to create a working environment and organizational climate that shall allow both the development and implementation of creativity, support the creative skills of their employees to ensure sustainable competition (Bakan and Büyükbeşe, 2013, p. 29). Individuals shall be able to be satisfied with their jobs and perform well in a working environment and an organizational climate where they can express their original and creative thoughts freely, determine their own methods to reach their goals, have access to the resources they require, think their work is meaningful and important, and where they can realize themselves (Çekmecelioğlu, 2007, p. 80). This study aims to examine the validity of this hypothesis by assuming that an organizational climate that supports individual creativity shall also affect the performance levels of employees with this study that is also driven by the importance of the subject.

The *organizational climate*, which is the first variable of this work, is a very broad concept and indicates how employees perceive the objective qualities of the organization, the events and various factors in the working environment (İşcan and Karabey, 2007, p. 182). *Performance*, which is the second variable of this work, may be defined as the level of achievement of the goal of a planned activity; and it may be expressed as the amount of output produced at a certain period time for the businesses, while it may be expressed as the level of efficiency and effectiveness displayed at the point of realizing the goals and objectives for the individuals (Tutar and Altınöz, 2010, p. 201). And the *creativity*, which is the third variable of this work, is described as the production of new and useful thinking in any field (Şengül and Eriş, 2010; cited by: Kaya, 2015, p. 125).

## 2. Method

The purpose of this work is to determine the mediating role of creativity while assessing the effects of the perceptions of the employees about the organizational climate on their performance. The theoretical model of this study is given in Figure 1.

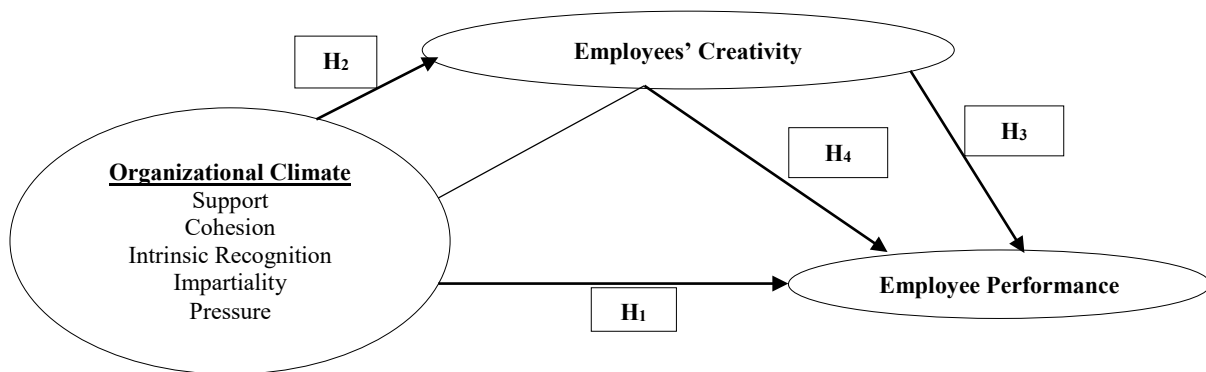


Figure 1. Theoretical Model of the Study

\* This study was presented as oral presentation between May 10th and 12th, organized in Prizren Province of Kosovo at XVI. European Conference on Social and Behavioral Sciences

As the organizational climate is the perception of the employees about the psychological environment of the organization, the fact that these perceptions are positive have a very important

position in their efficiency, effectiveness and motivations for success. Therefore, it may assumed that there is a relationship between the perceptions of employees about the organizational climate and their performance (Tutar and Altınöz, 2010, p. 196-205). As a result of many studies conducted, it has been determined that there is a relationship between the perception about the organizational climate and the performance of the employees (e.g., Demirdöken, 2017). Based on this information, the following hypothesis has been established:

**H<sub>1</sub>:** Dimensions of organizational climate affect employee performances.

**H<sub>1a</sub>:** The support dimension of organizational climate affects employee performances.

**H<sub>1b</sub>:** The impartiality dimension of organizational climate affects employee performances.

**H<sub>1c</sub>:** The cohesion dimension of organizational climate affects employee performances.

**H<sub>1d</sub>:** The intrinsic recognition dimension of organizational climate affects employee performances.

**H<sub>1e</sub>:** The pressure dimension of organizational climate affects employee performances.

Employees may develop their creative skills and potentials in a tolerant organizational climate that promotes the introduction of new ideas and development of new production methods only. Thus, managers shall create an organizational climate that shall enable the introduction of new ideas (Şimşek et al. 2014, p. 303-305). As a result of many researches conducted, it has been determined that there is a relationship between the perception about the organizational climate and the creativity of the employees (e.g., Awwad and Ali, 2012). Based on this information, the following hypotheses have been established:

**H<sub>2</sub>:** Dimensions of organizational climate affect the creativity of the employees.

**H<sub>2a</sub>:** The support dimension of organizational climate affects the creativity of the employees.

**H<sub>2b</sub>:** The impartiality dimension of organizational climate affects the creativity of the employees.

**H<sub>2c</sub>:** The cohesion dimension of organizational climate affects the creativity of the employees.

**H<sub>2d</sub>:** The intrinsic recognition dimension of organizational climate affects the creativity of the employees.

**H<sub>2e</sub>:** The pressure dimension of organizational climate affects the creativity of the employees.

And also as a result of many studies conducted, it has been determined that there is a relationship between the creativity of the employees and their performances (e.g., Soori and Feresat, 2016). Based on this information, the following hypothesis has been established:

**H<sub>3</sub>:** The creativity of the employees affects the performance.

It was considered that organizational climate has an effect on the performance of employees and this effect may be reflected in output variables through various variables. From this point of view, it is considered that the creativity of the employees may play a mediating role on the effect of the organizational climate on the performance of the employees. In the literature, it could not be found any research that examines the mediating role of creativity of the employees on the effect of the organizational climate on the performance of the employees. Thus, the following hypotheses have been established to investigate the mediating role of creativity of the employees on the effect of the organizational climate on the performance of the employees

**H<sub>4</sub>:** The creativity of the employees has a mediating role on the effect of the dimensions of the organizational climate on the performance of the employees.

**H<sub>4a</sub>:** The creativity of the employees has a mediating role on the effect of the support dimension of the organizational climate on the performance of the employees.

**H<sub>4b</sub>:** The creativity of the employees has a mediating role on the effect of the impartiality dimension of the organizational climate on the performance of the employees.

**H<sub>4c</sub>:** The creativity of the employees has a mediating role on the effect of the cohesion dimension of the organizational climate on the performance of the employees.

**H<sub>4d</sub>:** The creativity of the employees has a mediating role on the effect of the intrinsic recognition dimension of the organizational climate on the performance of the employees.

**H<sub>4e</sub>:** The creativity of the employees has a mediating role on the effect of the pressure dimension of the organizational climate on the performance of the employees.

This study is important for the determination of the conditions where an organizational climate that may affect creativity and performance of the employees positively may be established. This study

was carried out in a call centre in the province of Kırıkkale. The population for this research consists of a total of 150 persons working at a call centre in Kırıkkale. Surveys were handed out to all of the employees and 10 surveys were removed from the study as they were filled with missing information. 140 surveys were included in the study. It may be argued that the study may not be generalized as it was carried out in a province and in an institution only. Survey method was used as the data collection method in the study. The demographic characteristics of the employees were questioned in the first section of the survey; the second section included expressions measuring the organizational climate; the third section included expressions that measure the creativity of the employees; and the fourth section included expressions that measure the performance of the employees. Scales, of which their reliability was proven in the literature, were used to measure the three variables covered in the survey within the context of the study. The scale, consisting of 5 dimensions (support, impartiality, pressure, cohesion, intrinsic recognition) and 15 expressions, established by Montes et al. (2004, p. 175) based on the scale created by Koys and Decotis (1991) by the arrangement of this scale was used *to measure the perception of the organizational climate*. The expressions in the scale for the organizational climate were arranged as the 5-level Likert scale (1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree). The scale, consisting of four expressions and one dimension, used by Kirkman and Rosen (1999) and then by Sigler and Pearson (2000), and taken from Çöl (2008) was used *to measure the performance of the employees*. The scale, consisting of one dimension and 11 expressions, established by Muñoz-Doyague et al. (2008, p. 33) adapting the works of Ettlie and O'Keefe (1982), Scott and Bruce (1994), Oldham and Cummings (1996), Zhou and George (2001) was used *to measure the perception of the creativity of the employees*. The expressions in the scale for the performance and creativity of the employees were arranged as the 5-level Likert scale (1-Strongly disagree, 2-Disagree, 3-Neither agree nor disagree, 4-Agree, 5-Strongly agree). The results obtained from the survey were analysed using the SPSS 18.0 software. A correlation analysis was conducted to determine the descriptive statistics that reveal the characteristics of the sample, and the strength and direction of the relationships between the variables of the study. Whether the data are distributed normally was inspected by the Kolmogorov-Smirnov test, and parametric analysis methods were used as normal distribution of the data was confirmed as a result of this inspection. Hierarchical regression was used to examine the mediating role.

### 3. Findings

Findings achieved as a result of the analysis of the data obtained by the survey method were classified and the following data were obtained.

**Table 1.** Results of the analysis of confirmatory factors and reliability for the scale of organizational climate, employee and creativity

Variables	Minimum Factor Load	Maximum Factor Load	Cronbach's Alpha	Explained Variance	Total Explained Variance
Support	0.636	0.632	0.687	34.066	70.612
Cohesion	0.716	0.673	0.785	46.769	
Intrinsic Recognition	0.490	0.412	0.837	55.411	
Impartiality	0.458	0.445	0.786	63.647	
Pressure	0.791	0.652	0.769	70.612	
Organizational Climate			0,826		
Employee Performance	0.677	0.855	0.785	61.556	61.556
Employee Creativity	0.676	0.765	0.912	53.664	53.664



As a result of the confirmatory factor analysis (CFA), it was determined that support has a factor load of 0.636-0.632; compatibility has a factor load of 0.716-0.673; intrinsic recognition has a factor load of 0.490-0.412; cohesion has a factor load of 0.458-0.445 and pressure has a factor load of 0.791-0.652 as the sub-dimensions of the organizational climate. The five sub-dimensions of organizational climate explain 70.612% of the total variance. (KMO: 0.784; Chi-Square: 860.190; Sd: 105; p: 0.000). Moreover, sub-dimensions of organizational climate scale are determined to have the following Cronbach's Alpha Coefficients respectively. It was observed that the employee performance scale has a factor load between 0.677 and 0.855. This scale explains 61.556% of the total variance (KMO: 0.711; Chi-Square: 179.330; Sd: 6; p: 0.000). Also, Cronbach's Alpha coefficient of the scale was calculated as 0.785. It was observed that the employee creativity scale has a factor load between 0.676 and 0.765. This scale was found to explain 53.664% of the total variance (KMO: 0.903; Chi-Square: 808.202; Sd: 55; p: 0.000). Cronbach's Alpha coefficient of the scale is 0.912 (Table 1). The fact that Cronbach's Alpha coefficients are between "0.80 and 1.00" indicates that "the scale is highly reliable"; and the fact that it is between "0.60 and 0.80" indicates that "the scale is reliable" (Kalaycı, 2009, p. 405). As a result of the CFA and reliability analyses performed, it may be assumed that the scales of organizational climate, employee performance and creativity have adequate levels of validity and reliability.

Distribution of frequencies and percentages for the demographical characteristics of 140 employees participated in the survey are given in Table 2.

**Table 2.** Descriptive statistics about the demographical characteristics of the participants

Demographical Characteristics	N	%	Demographical Characteristics	N	%
<b>Sex</b>			<b>Marital status</b>		
Male	93	66.4	Married	93	66.4
Female	47	33.6	Bachelor	47	33.6
<b>Total</b>	<b>140</b>	<b>100</b>	<b>Total</b>	<b>140</b>	<b>100</b>
<b>Age</b>			<b>Educational Background</b>		
Under 20 years			Primary Education	1	0.7
21 to 25 years	67	47.9	High School	51	36.4
26 to 30 years	45	32.1	Associate Degree	53	37.9
31 to 35 years	27	19.3	Bachelor's Degree	35	25.0
<b>Total</b>	<b>140</b>	<b>100</b>	<b>Total</b>	<b>140</b>	<b>100</b>

N= Number of Participants

As per Table 2, 66.4% of the participants (93 persons) are male and 33.6% of the participants (47 persons) are female. It was observed that 66.4% of the participants (93 persons) are married, and the rest (33.6% - 47 persons) are bachelors and a majority of the participants (47.9% - 67 persons) are under 20 years of age. It also observed that a majority of the participants either have associate degrees (37.9% - 53 persons) or are high school graduates (36.4% - 51 persons).

Table 3 provides the results of the correlation analysis in order to determine the relations between the variables of the study.

## The Effects of Organizational Climate on the Employee Performance

**Table 3.** Results of the correlation analysis

Variables	Avg.	S.D.	1	2	3	4	5	6	7
<b>Support (1)</b>	.73	.08	1						
<b>Impartiality (2)</b>	.38	.20	0.87 *	1					
<b>Pressure (3)</b>	.44	.17	0.83 *	0.09 *	1				
<b>Cohesion (4)</b>	.91	.87	0.66 *	0.82 *	0.44 *	1			
<b>Intrinsic Recognition (5)</b>	.92	.13	0.43 *	0.37 *	0.22 *	0.99 *	1		
<b>Employee Creativity (6)</b>	.66	.80	0.39 *	0.07 *	0.61 *	0.38 *	0.01 *	0.3	1
<b>Employee Performance (7)</b>	.30	.68	0.84	0.68	0.68 *	0.86 *	0.13 *	0.2	0.85 *

Avg. = Average; S. D. = Standard Deviation; \* Correlation is relevant at a level of 0.01 (bidirectional)

According to the results of the correlation analysis in Table 3, a weak significant relation in the positive direction ( $0.00 < r < 0.30$ ) was determined between the creativity of the employees and the support, pressure and cohesion dimensions, which are the sub-dimensions of organizational climate; and a medium significant relation in the positive direction ( $0.30 < r < 0.70$ ) was determined between the creativity of the employees and the impartiality and intrinsic recognition dimensions. A weak significant relation in the positive direction ( $0.00 < r < 0.30$ ) was determined between the performance of the employees and the support, cohesion and intrinsic recognition as the sub-dimensions of organizational climate; and a medium significant relation in the positive direction ( $0.30 < r < 0.70$ ) was determined between the performance of the employees and the creativity of the employees. However, it has been determined that there is no significant relationship between support, impartiality as the sub-dimensions of organizational climate and the performance of the employees. In line with this finding, it may be concluded that the creativity of the employees may be improved as the positive perceptions about support, pressure, cohesion, impartiality, intrinsic recognition dimensions are improved; the performance of the employees may be improved as the positive perceptions about pressure, cohesion and intrinsic recognition dimensions are improved; and the performance of the employees may be improved as the creativity of the employees is improved.

As a result of this study made, it can be also thought that the creativity of the employees may play a mediating role on the effect of the organizational climate on the performance of the employees. For a relationship between two variables, three conditions shall be met to consider the mediating role of another variable in this relationship. These conditions are as follows (Baron and Kenny, 1986, p. 1176):

1. The independent variable (sub-dimensions of the organizational climate) shall effect the variable with the mediating role (employee creativity).
2. The independent variable (sub-dimensions of the organizational climate) shall effect the dependent variable (employee performance).
3. When the mediating variable (employee creativity) in the second condition is added to the model, the effect of the independent variable (sub-dimensions of the organizational climate) on the dependent variable (employee performance) shall be reduced or shall become insignificant, and at the same time the mediating variable (employee creativity) shall affect the dependent variable (employee performance).

When the third condition is met, it may be considered a full effect of mediation if the effect of the independent variable (sub-dimensions of the organizational climate) on the dependent variable (employee performance) has become insignificant; and it may be told that a partial role of mediation is realized if this effect is reduced.

**Table 4.** Mediating role of the employee creativity on the relationship between the support (a sub-dimension of the organizational climate) and the employee performance

<b>Results of the First Step of the Regression Analysis (Model 1) Mediating Variable: Employee Creativity</b>			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Support	<b>0.239</b>	2.893	<b>0.004 *</b>
<b>R<sup>2</sup>=0.057; Corrected R<sup>2</sup>=0.050 F=8.368 p&lt;0.05</b>			
<b>Results of the Second Step of the Regression Analysis (Model 2) Dependent Variable: Employee Performance</b>			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Support	0.084	0.992	0.323
<b>R<sup>2</sup>=0.007; Corrected R<sup>2</sup>=0.000 F=0.938 p&lt;0.05</b>			

\*p<0.05

Model 1 regression analysis was conducted to determine the mediating role of the employee creativity on the relationship between the support (a sub-dimension of the organizational climate) and the employee performance. As a result of the analysis, the effect of support on the employee creativity, which is a mediating role, was found to be significant ( $p<0.05$ ) and it was determined that support explains 5% of the employee creativity ( $B=0.239$ ; Corrected  $R^2=0.050$ ). After performing the first stage, it has been moved to Model 2 regression analysis related with the mediating role in the second condition, but it has been found that the second condition is not met ( $p>0.05$ ). Support has no significant effect on the employee performance ( $B=0.084$ ; Corrected  $R^2=0.000$ ). No mediating role was found on the relationship of the employee creativity with the support and the employee performance as the second condition was not met (Table 4).

**Table 5.** Mediating role of the employee creativity on the relationship between the cohesion (a sub-dimension of the organizational climate) and the employee performance

<b>Results of the First Step of the Regression Analysis (Model 1) Mediating Variable: Employee Creativity</b>			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Cohesion	<b>0.238</b>	2.882	<b>0.005 *</b>
<b>R<sup>2</sup>=0.057; Corrected R<sup>2</sup>=0.050 F=6.557 p&lt;0.05</b>			
<b>Results of the Second Step of the Regression Analysis (Model 2) Dependent Variable: Employee Performance</b>			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Cohesion	0.286	3.502	0.001 *
<b>R<sup>2</sup>=0.082; Corrected R<sup>2</sup>=0.075 F=12.262 p&lt;0.05</b>			
<b>The Effect of the Employee Creativity on the Employee Performance</b>			
<b>Beta</b>	<b>t</b>	<b>p</b>	
0.485	6.510	0.000 *	
<b>R<sup>2</sup>=0.235; Corrected R<sup>2</sup>=0.229 F=42.386; p&lt;0.05</b>			
<b>Results of the Third Step of the Regression Analysis (Model 3) Dependent Variable: Employee Performance</b>			
<b>Independent Variables</b>	<b>Beta</b>	<b>t</b>	<b>p</b>

## The Effects of Organizational Climate on the Employee Performance

Cohesion	<b>0.180</b>	2.393	<b>0.018 *</b>
Employee Creativity	<b>0.444</b>	5.860	<b>0.000 *</b>
<b>R<sup>2</sup>=0.266; Corrected R<sup>2</sup>=0.255 F=24.708 p&lt;0.05</b>			

\*p&lt;0.05

Model 1 regression analysis was conducted to determine the mediating role of the employee creativity on the relationship between the cohesion (a sub-dimension of the organizational climate) and the employee performance. As a result of the analysis, the effect of cohesion dimension on the employee creativity, which is a mediating role, was found to be significant ( $p<0.05$ ). Cohesion dimension explains 5% of the employee creativity ( $B=0.238$ ; Corrected  $R^2=0.050$ ). After performing the first stage, it has been moved to Model 2 regression analysis related with the determination of mediating role in the second condition. The effect of cohesion dimension on the employee performance was also found to be significant ( $p<0.05$ ). Cohesion sub-dimension explains 7.5% of the employee performance ( $B=0.286$ ; Corrected  $R^2=0.075$ ). The effect of employee creativity on the employee performance was also found to be significant ( $p<0.05$ ). Employee creativity explains 22.9% of the employee performance ( $B=0.485$ ; Corrected  $R^2=0.229$ ). Thus, second condition is met, and it has been continued analyses for the third condition. As per the Model 3 regression analysis performed, the variable of employee creativity was added to the relation of cohesion dimension and the employee performance and the effect of cohesion dimension and employee creativity together on the employee performance was observed. As seen in Model 3, the effect of cohesion dimension on the employee performance was reduced when the employee creativity was added to the model ( $B=0.180$ ; Corrected  $R^2=0.255$ ). Thus, the third condition was met, and it was determined that the employee creativity has a partial mediating role on the relationship between the cohesion (a sub-dimension of the organizational climate) and the employee performance (Table 5).

**Table 6.** Mediating role of the employee creativity on the relationship between the intrinsic recognition (a sub-dimension of the organizational climate) and the employee performance

<b>Results of the First Step of the Regression Analysis (Model 1) Mediating Variable:</b> Employee Creativity			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Intrinsic Recognition	<b>0.301</b>	3.707	<b>0.000 *</b>
<b>R<sup>2</sup>=0.091; Corrected R<sup>2</sup>=0.084 F=13.742 p&lt;0.05</b>			
<b>Results of the Second Step of the Regression Analysis (Model 2) Dependent Variable:</b> Employee Performance			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Intrinsic Recognition	<b>0.213</b>	2.561	<b>0.012 *</b>
<b>R<sup>2</sup>=0.045; Corrected R<sup>2</sup>=0.038 F=6.557 p&lt;0.05</b>			
<b>Results of the Third Step of the Regression Analysis (Model 3) Dependent Variable:</b> Employee Performance			
<b>Independent Variables</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Intrinsic Recognition	0.074	0.945	0.343
Employee Creativity	<b>0.463</b>	0.463	<b>0.000 *</b>
<b>R<sup>2</sup>=0.240; Corrected R<sup>2</sup>=0.229 F=21.623 p&lt;0.05</b>			

\*p&lt;0.05

Model 1 regression analysis was conducted to determine the mediating role of the employee creativity on the relationship between the intrinsic recognition (a sub-dimension of the organizational climate) and the employee performance. As a result of the analysis, the effect of intrinsic recognition dimension on the employee creativity, which is a mediating role, was found to be significant ( $p<0.05$ ). Intrinsic recognition dimension explains 8.4% of the employee creativity ( $B=0.301$ ; Corrected  $R^2=0.084$ ). After performing the first stage, it has been moved to Model 2 regression analysis related

with the mediating role. The effect of intrinsic recognition dimension on the employee performance was also found to be significant ( $p < 0.05$ ). Intrinsic recognition sub-dimension explains 3.8% of the employee performance ( $B = 0.213$ ; Corrected  $R^2 = 0.038$ ). Thus, second condition is met, and it has been continued analyses for the third condition. As per the Model 3 regression analysis performed, the variable of employee creativity was added to the relation of intrinsic recognition dimension and the employee performance and the effect of intrinsic recognition dimension and employee creativity together on the employee performance was observed. As seen in Model 3, the effect of intrinsic recognition dimension on the employee performance has become insignificant when the employee creativity was added to the model ( $B = 0.074$ ; Corrected  $R^2 = 0.229$ ). Thus, the third condition was met, and it was determined that the employee creativity has a full mediating role on the relationship between the intrinsic recognition (a sub-dimension of the organizational climate) and the employee performance (Table 6).

**Table 7.** Mediating role of the employee creativity on the relationship between the impartiality (a sub-dimension of the organizational climate) and the employee performance

<b>Results of the First Step of the Regression Analysis (Model 1) Mediating Variable:</b>			
Employee Creativity			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Impartiality	<b>0.307</b>	3.788	<b>0.000 *</b>
<b><math>R^2 = 0.094</math>; Corrected <math>R^2 = 0.088</math> <math>F = 14.341</math> <math>p &lt; 0.05</math></b>			
<b>Results of the Second Step of the Regression Analysis (Model 2) Dependent Variable:</b>			
Employee Performance			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Impartiality	0.068	0.798	0.426
<b><math>R^2 = 0.005</math>; Corrected <math>R^2 = -0.003</math> <math>F = 0.636</math> <math>p &gt; 0.05</math></b>			
<b>*<math>p &lt; 0.05</math></b>			

Model 1 regression analysis was conducted to determine the mediating role of the employee creativity on the relationship between the impartiality (a sub-dimension of the organizational climate) and the employee performance. As a result of the analysis, the effect of impartiality dimension on the employee creativity, which is a mediating role, was found to be significant ( $p < 0.05$ ) and it was determined that impartiality dimension explains 8.8% of the employee creativity ( $B = 0.307$ ; Corrected  $R^2 = 0.088$ ). After performing the first stage, it has been moved to Model 2 regression analysis related with the mediating role in the second condition, but it has been found that the second condition could not be met ( $p > 0.05$ ). It was found that the impartiality dimension has no significant effect on the employee performance ( $B = 0.068$ ; Corrected  $R^2 = -0.003$ ). No mediating role was found on the relationship of the employee creativity with the impartiality and the employee performance as the second condition was not met (Table 7).

**Table 8.** Mediating role of the employee creativity on the relationship between the pressure (a sub-dimension of the organizational climate) and the employee performance

<b>Results of the First Step of the Regression Analysis (Model 1) Mediating Variable:</b> Employee Creativity			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Pressure	<b>0.261</b>	3.180	<b>0.002 *</b>
<b>R<sup>2</sup>=0.068; Corrected R<sup>2</sup>=0.062 F=10.115 p&lt;0.05</b>			
<b>Results of the Second Step of the Regression Analysis (Model 2) Dependent Variable:</b> Employee Performance			
<b>Independent Variable</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Pressure	<b>0.168</b>	2.004	<b>0.047</b>
<b>R<sup>2</sup>=0.028; Corrected R<sup>2</sup>=0.021 F=4.015 p&lt;0.05</b>			
<b>Results of the Third Step of the Regression Analysis (Model 3) Dependent Variable:</b> Employee Performance			
<b>Independent Variables</b>	<b>Beta</b>	<b>t</b>	<b>p</b>
Pressure	0.045	0.576	0.566
Employee Creativity	<b>0.473</b>	6.119	<b>0.000 *</b>
<b>R<sup>2</sup>=0.236; Corrected R<sup>2</sup>=0.226 F=21.256 p&lt;0.05</b>			

\*p&lt;0.05

Model 1 regression analysis was conducted to determine the mediating role of the employee creativity on the relationship between the pressure (a sub-dimension of the organizational climate) and the employee performance. As a result of the analysis, the effect of pressure dimension on the employee creativity, which is a mediating role, was found to be significant ( $p < 0.05$ ). Pressure dimension explains 6.2% of the employee creativity ( $B = 0.261$ ; Corrected  $R^2 = 0.062$ ). After performing the first stage, it has been moved to Model 2 regression analysis related with the mediating role. The effect of pressure dimension on the employee performance was also found to be significant ( $p < 0.05$ ). Pressure sub-dimension explains 2.1% of the employee performance ( $B = 0.168$ ; Corrected  $R^2 = 0.021$ ). Thus, second condition is met, and it has been continued analyses for the third condition. As per the Model 3 regression analysis performed, the variable of employee creativity was added to the relation of pressure dimension and the employee performance and the effect of pressure dimension and employee creativity together on the employee performance was observed. As seen in Model 3, the effect of pressure dimension on the employee performance has become insignificant when the employee creativity was added to the model ( $B = 0.045$ ; Corrected  $R^2 = 0.226$ ). Thus, the third condition was met, and it was determined that the employee creativity has a full mediating role on the relationship between the pressure (a sub-dimension of the organizational climate) and the employee performance (Table 8). As a conclusion;  $H_1$  ( $H_{1a}$ ,  $H_{1b}$  rejected;  $H_{1c}$ ,  $H_{1d}$ ,  $H_{1e}$  accepted) and  $H_4$  ( $H_{4a}$ ,  $H_{4b}$  rejected;  $H_{4c}$ ,  $H_{4d}$ ,  $H_{4e}$  accepted) hypotheses were partially accepted, and  $H_2$  ( $H_{2a}$ ,  $H_{2b}$ ,  $H_{2c}$ ,  $H_{2d}$ ,  $H_{2e}$  accepted) and  $H_3$  hypotheses were accepted.

#### 4. Conclusion

The organizational climate is the emotions and thoughts of the employees when they sense the atmosphere in the organization. These emotions and thoughts have different impressions on the employee. They may increase the commitment of the employee to the organization, improve their motivation or performance or otherwise affect their performance negatively (Deniz and Çoban, 2016, p. 50-51). Organizational climate shall be designed to maximize employee performance and creativity both physically and psychologically. In addition to the physical working conditions in the business environment, management and leadership styles shall also have the qualities to provide employee satisfaction. (Tutar and Altınöz, 2010, p. 197). In this study, the effects of organizational climate and employee creativity on employee performance were investigated. Also, the mediating role of the

employee creativity on the relationship of the organizational climate and the employee performance were examined. Data for the study were collected with the survey method, and the sample population of the study was established by 140 employees employed in a call center in the Kırıkkale province. The results obtained were analysed using the SPSS 18.0 software pack. As a result of the study, it was determined that the sub-dimensions of organizational climate (support, cohesion, intrinsic recognition, impartiality and pressure) have a positive and significant effect on the employee creativity; and the cohesion, pressure, intrinsic recognition and employee creativity have a positive and significant effect on the employee performance. It was also determined that the employee creativity has a full mediating role on the effect of the intrinsic recognition and pressure sub-dimensions of organizational climate on the employee performance, and it has a partial mediating role on effect of the cohesion sub-dimension of organizational climate on the employee performance. This study was conducted in a single province and on a single sector only, and it has considered three research variables in question. Future studies to be conducted in different sectors and fields may provide better understanding of the subject.

## 5. References

- Awwad, M. S. & Ali, H. K. (2012). Emotional intelligence and entrepreneurial orientation: The moderating role of organizational climate and employees' creativity, *Journal of Research in Marketing and Entrepreneurship*, 14 (1), 115-136.
- Bakan, İ. & Büyükbese, T. (2013). Yaratıcılık ve yaratıcılık yönetimi, (Ed.) İ. Bakan, *Çağdaş yönetim yaklaşımları: İlkeler, kavramlar ve yaklaşımlar*, Beta Yayınevi, 3. Baskı, Mart, İstanbul.
- Baron, R. M. & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: conceptual, strategic and statistical considerations, *Journal of Personality And Social Psychology*, 51 (6), 1173-1182.
- Çekmecelioğlu, H. G. (2007). Örgüt ikliminin iş tatmini ve işten ayrılma niyeti üzerindeki etkisi: Bir araştırma, *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 9 (1), 79-97.
- Çöl, G. (2008). Algılanan güçlendirme'nin işgören performansı üzerine etkileri, *Doğuş Üniversitesi Dergisi*, 9 (1), 35-46.
- Demirdöken, Ç. (2017). *Gençlik ve spor bakanlığında örgüt ikliminin işgören performansı üzerine etkisi: Alan araştırması*, Hitit Üniversitesi Sosyal Bilimler Enstitüsü, Beden Eğitimi ve Spor Anabilim Dalı, Doktora Tezi, Çorum.
- Deniz, M. & Çoban, R. (2016). Örgütsel iklimin çalışan bağlılığına etkisi ve bir araştırma, *Birey ve Toplum*, 6 (12), 49-72.
- Ettlie, J. E. & O'Keefe, R. D. (1982). Innovative attitudes, values, and intentions in organizations, *Journal of Management Studies*, 19, 163-182.
- İşcan, Ö. F. & Karabey, C. N. (2007). Örgüt iklimi ile yeniliğe destek algısı arasındaki ilişki, *Gaziantep Üniversitesi Sosyal Bilimler Dergisi*, 6 (2), 180-193.
- Kalaycı, Ş. (2009). *SPSS uygulamalı çok değişkenli istatistik teknikleri*, Asil Yayın Dağıtım Ltd., 4. Baskı, Ankara.
- Kaya, C. İ. (2015). Girişimcilikte yenilik, (Eds.) M. Paksoy, A. Özgöz, *Girişimcilik*, Lisans Yayıncılık, 1. Baskı, İstanbul.
- Kirkman, B. L. & Rosen, B. (1999). Beyond self- management: Antecedents and consequences of team empowerment, *Academy of Management Journal*, 42 (1), 58-74.
- Koys, D. J. & Decotis, T. A. (1991). Inductive measures of psychological climate, *Human Relations*, 44 (3), 265-285.
- Montes, F. J., Moreno, A. R. & Fernandez, L. M. (2004). Assessing the organizational climate and contractual relationship for perceptions of support for innovation, *International Journal of Manpower*, 25 (2), 167-180.
- Muñoz-Doyague, M. F., González-Álvarez, N. & Nieto, M. (2008). An examination of individual factors and employees' creativity: The case of Spain, *Creativity Research Journal*, 20 (1), 21-33.
- Oldham, A. & Cummings, G. R. (1996). Employee creativity: Personal and contextual factors at work, *Academy of Management Review*, 39, 607-634.

Scott, S. G. & Bruce, R. A. (1994). Determinants of innovative behaviour: A path model of individual innovation in the work place, *Academy of Management Journal*, 37, 580-607.

Sigler, T. H. & Pearson, C. M. (2000). Creating an empowering culture: Examining the relationship between organizational culture and perceptions of empowerment, *Journal of Quality Management*, 5, 27-52.

Soori, Z. & Ferasat, H. (2016). The relationship between creativity and job performance khorramabad municipal departments, *J. Appl. Environ. Biol. Sci.*, 6 (3S), 192-198.

Şengül, M. C. & Eriş, D. E. (2010). Yenilik için yaratıcılık, (Eds.) N. T. Özmen, P. S. Özer, E. D. Eriş, *Seçme yazılarla örgütler ve yenilik*, Detay Yayıncılık, 1. Baskı, Ankara, 77-109.

Şimşek, M. Ş., Çelik, A. & Akgemci, T. (2014). *Davranış bilimlerine giriş ve örgütlerde davranış*, Eğitim Yayınevi, 8. Yenilenmiş Baskı, Konya.

Tutar, H. & Altınöz, M. (2010). Örgütsel iklimin işgören performansı üzerine etkisi: Ostim imalat işletmeleri çalışanları üzerine bir araştırma, *Ankara Üniversitesi SBF Dergisi*, 65 (2), 195-218.

Zhou, J. & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice, *Academy of Management Journal*, 44, 682-697.





# Public Framework Contracts in Kosovo, some study aspects

Azem Duraku

## 1. Introduction

According to the Law on Public Procurement, a public framework contract means an agreement for a limited period between one or more contracting authorities and one or more economic operators, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular with regard to the price and, where appropriate, the quantity envisaged. There are two types of public framework contracts: (1) Those which define all terms of the contract and usually relate to an economic operator; and (2) those which do not define all terms of the contract and consequently need further competition to establish the terms of the contract, as they also relate to some economic operators. The scope of public framework contracts may include works, supplies and services. Great Britain and Denmark have introduced the idea of using framework contracts under the public procurement rules established during 1970-1980. The general idea was partly to save resources by having a contract covering the needs of the Contracting Authority over a period of time, and partly to enable Contracting Authorities to use the public framework contract.

Kosovo has begun to apply framework contracts after 2010. A good system of planning, preparation and evaluation of a public framework contract by the Contracting Authorities in Kosovo will affect the elimination of negative phenomena of mismanagement and future recommendations for management and exploitation of public money while being economic, efficient, and fair.

The application of agreements, framework contracts in Kosovo with legal regulation, has begun to apply from May 2010. The contracting authorities have begun to use the framework contracts during 2011. Currently, almost all contracting authorities are using these types of contracts, with the following contracting authorities such as Central Procurement Agency, Kosovo Energy Corporation J.S.C., Post and Telecommunication of Kosovo J.S.C. being amongst the institutions which use such contracts the most. The value of these contracts is considerable and it is more difficult to be determined since these contracts are usually signed at a price per unit, but we can conclude that their value is high as we are mainly dealing with supplies and services that amount to a significant sum in procurements conducted in Kosovo.

The selection of the public framework contract should be made by assessing the need for changing the terms including prices throughout the agreement period, which may be up to three years. If the prices are very stable and the public framework contract is concluded at the time when the level of competition is considered high, there is no need for reopening of the competition. High prices at the time of concluding public framework contracts represent the need for mini-tenders.

The use of negotiated procedures is intended to be reduced as much as possible via the use of framework agreements and contracts, use of public framework agreements when the amount or exact value of the activities cannot be determined and respecting the principle of transparency and value for money regarding the supply, service or work required.

## 2. Methodology

The study was carried out based on previous studies in the field of public procurement that especially analyze issues in this field as well as the regulation applicable for governing this field. In line with the objective of the paper, a detailed analysis in the field of framework contracts in our country was carried out based on the available data. The literature used is related to Framework Contracts in Kosovo and we have tried, at all times, to use the literature of neighbouring countries that have characteristics which are similar with Kosovo. During this research, I have used the method of deduction as well as methods of comparative analysis.

During this research, I have used records and publications from the official websites of CPA, PPRC, Ministry of Finance, Kosovo Agency of Statistics and other relevant institutions.

The model for the assessment of a public framework contract is in accordance with the contract award criteria that may be either the lowest price or the most economically advantageous tender. In the case of public framework contracts, where the indicative quantities are unknown and in the case of contracts with unit prices, the Contracting Authority shall determine the weighting based on the importance of each “category of services” or each “item” in order for the Contracting Authority to determine which bid has the lowest price. At this point, we will focus more on demonstrating concrete cases to be considered in the future during the assessment of public framework contracts with unit prices by choosing the lowest bid with scoring points set out in advance in the tender dossier.

### **3. Public framework contracts in Kosovo**

Public framework contract means an agreement for a limited period between one or more contracting authorities and one or more economic operators, the purpose of which is to establish the terms governing contracts to be awarded during a given period, in particular with regard to price and, where appropriate, the quantity envisaged.

There are two types of public framework contracts:

- Traditional public framework contracts with a supplier where, except the quantity, all other conditions are stated in the contract, and,
- A new type of public framework contracts with a number of Suppliers who did not conclude all the conditions of shipments, where the Contracting Authority may reopen the competition by requiring the prices and other undefined conditions for a particular shipment, inviting the suppliers to offer prices in a mini-tender.

Selection of public framework contract type shall be made by assessing the needs for changing the terms, including prices throughout the agreement period, which may be up to three years. In case of very stable prices and the public framework contract being concluded at the time when the level of competition is considered high, there is no need for reopening of the competition. High prices at the time when public framework contract is concluded represent the need of mini-tenders.

The duration of public framework contracts may also affect the selection of the type. The need for a public framework contract that allows price correction is higher, the longer the contract term is. According to Law on Public Procurement, no public framework contract shall have duration of more than 36 months and it shall not be extendable or renewable. Whereas, based on European Directives, the duration of public framework contracts may be up to four years.

Why should public framework contracts be used? Usually, public framework contracts are used because Contracting Authorities understand that the terms for a particular contract may be better if the required quantities are higher as a result of covering more than one contract, because the framework contract covers the needs for a period of up to three years.

It is also considered as a benefit if more contracting authorities join forces and conclude a mutual agreement; because it is more efficient to have a contracting authority with special expertise (CPA) regarding the type of supplies or specific services concluding agreements on behalf of all involved Contracting Authorities. Over a certain period, it will be possible for the Contracting Authority to develop qualifications for certain types of goods or services and use the qualifications of others in other fields, meaning where it lacks expertise.

The last reason for using public framework contracts of any kind is that it reduces the need for resources, because tendering for requested goods and services, over a certain period, is done only once, especially due to the complicated rules and procedures of EU directives and LPP. The use of public framework contracts also allows for the management of procurement in a shorter period as it is not necessary to publish the contract notices and wait for bidding for a longer period – deadlines are not required to be long neither in cases of reopening the competition.

Right at the beginning of the procedure, it is important to determine the total amount of goods and services – or works that are expected to be delivered during the contract period. The amounts can be foreseen based on how much has been spent last year and regulated according to the known

variations. The foreseen values should be mentioned in the Contract Notice in order for economic operators to be notified regarding the size of the contract for the purpose of pooling only the bidders able to meet the obligations and providing the best price due to contract value.

In Kosovo, when determining the value of the public framework contract, the normal methods of determining the contract value should be applied. However, it should be clearly noted in the tender dossier that the values are not foreseen and it will not be guaranteed that the current requests will be changed, increased or decreased. This is important in cases when the public framework contract has more than one economic operator since it will be impossible to foresee which supplier will be selected.

Public framework contracts are closed systems, which implies that no new Contracting Authority or Economic Operator can use the framework as long as the public framework contract lasts.

Whenever used by the Contracting Authority, the public framework contract shall be explicitly identified in the Contract Notice, either by directly naming them in the contract notice or by reference to other documents.

The Contracting Authority should assess whether the public framework contract is the best approach for the relevant procurement. This will include judgments for extracting the value of money given the nature of the procurement as well as the ability to specify procurement with sufficient precision at the outset.

The Public Procurement Framework in Kosovo defines the manner of implementation of the public framework contract as a means of a procurement procedure under Article 38 of the LPP, the Operational Guidelines on Procurement (OGP), and clarifies the manner of implementation in the two Administrative Instructions issued by the PPRC, as follows:

- AI No. 2/2015, for the period, value and quantity of the framework contract, and
- AI No. 3/2015, for the implementation of the criterion "responsive tender with the lowest price", in the public framework contracts with prices per unit or in case of multiple service providers.

In the case of central procurement activities, such as public framework contract developed by the Central Procurement Agency on behalf of other Contracting Authorities, the use of such central contracts is indispensable for the Contracting Authorities. The contracting authority may not use public framework contracts in such a way as to prevent, restrict or confuse the competition.

### **Procurement procedures for Public Framework Contracts**

(a) In cases where the contracting authority plans to award a framework contract, it must use one of the following:

- (b) Open procedure;
- (c) Restricted procedure;
- (d) Competitive negotiated procedure;
- (e) Negotiated procedure without prior publication of a contract notice

Only goods included in the public framework contract may be ordered. The framework agreement may only be used by the Contracting Authority which tenders the public framework contract and those contracting authorities subject to the agreement may use that framework agreement.

### **Model for assessing a public framework contract**

Criteria for contract award may be either *the lowest price* or *the most economically advantageous tender*.

If the contracting authority has specified that the public contract will be awarded to the economic operator that has submitted **the most economically advantageous tender**, the concerned contracting authority shall specify the criteria to be taken into account when determining the winner in the contract notice and in the tender dossier and the importance given to each criterion.

If the criterion is the **lowest price**, the contract must always be awarded for the lowest price tender in accordance with the specified requirements.

In the case of the *most economically advantageous tender* criterion, it is obligatory to convert any element of the award criterion and then weigh it on the basis of the formula and weights set out in the Contract Notice and Tender Dossier.

In the case of public framework contracts, where indicative quantities are unknown, **the contracts with price per unit**, the CA should determine the weight based on the importance of each "service category" or each "item" in order for the Contracting Authority to determine which lowest price bid is.

In such cases, the Contracting Authority shall evaluate the frequency and importance of each item or the frequency and importance of each category of services and shall weigh the price on the basis of importance.

These weights will only be used for the purpose of articulating the importance of each service or item and to be able to choose the lowest price bid.

1. In the case of the lowest price, by weighing the prices, the weighted prices are based on the price offered by the individual Economic Operators, so it is not permissible to determine the points by comparing the prices of the various bidders.

2. The only function of price weighing is to determine the contract with the lowest price, but the payment is always made based on the bid price.

3. It is strictly forbidden to compare the prices of the different bids with each other and to convert the calculated values into points, then to weigh the points, since in this way the highest points scored will not necessarily result in the lowest price.

4. The Contracting Authority shall specify in the Tender Dossier the weight (importance) of the prices of the specific categories and shall articulate the importance in the total % which shall be 100%.

As an example of good activities that can be applied in the frame contracts is the subject of the contract: Maintenance of vehicles with a criterion for contract award: "Lowest price".

Table 1: Maintenance of vehicles with a criterion for contract award: "Lowest price"

Categories		Weight based on importance		Weighted price	Company A		Company B		Company C	
					Price	Weighted price	Price	Weighted price	Price	Weighted price
1	Price for regular services	60	%	Price x 60%	€ 100,00	€ 60,00	€ 80,00	€ 48,00	€ 110,00	€ 66,00
2	Price for maintenance and spare parts	20	%	Price x 20%	€ 100,00	€ 20,00	€ 80,00	€ 16,00	€ 50,00	€ 10,00
3	Price for repairs and colouring	5	%	Price x 5%	€ 120,00	€ 6,00	€ 200,00	€ 10,00	€ 70,00	€ 3,50
4	Price for chassis parts	15	%	Price x 15%	€ 100,00	€ 15,00	€ 150,00	€ 22,50	€ 120,00	€ 18,00
		100	%							
Total price (not weighed based on importance and frequency):					€ 420,00		€ 510,00		€ 350,00	
Total weighted price - Lowest price contract:					101€		97€		98€	

## Public Framework Contracts in Kosovo, some study aspects

The winner based on the Lowest Price Tender Criterion: Company B. The reason is that although the total amount of unit prices is the lowest in Company C, the Regular Service Price (item No. 1), which will be ordered in most cases (60%), is the most expensive in the case of Company C.

The total amount of unit prices is the highest at Company B, however, the most commonly needed item (No.1) is the one with the lowest price at this company, thus making the total price the lowest.

Table no. 2, Value of contracts signed during 2007 – 2016

Value of contracts signed during the years, expressed in millions €										
Contracting Authorities:	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Governmental	187.46	456.69	529.85	286.73	284.71	318.59	348.63	259.68	250.25	359.74
Public Companies	213.82	369.62	245.38	194.57	267.26	188.56	93.62	129.57	149.81	62.06
Other/NGO	0.94	0.16	2.92	0.75	0.17	0.70	1.92	0.47	1.77	2.76
Total:	402.22	826.48	778.15	482.06	552.15	507.86	448.18	389.73	401.84	424.57

Source: Report on Public Procurement Activities for 2007 - 2016, PPRC.

In the above data, the values of signed contracts, where it is seen that Governmental Contracting Authorities have higher value compared to public companies and other authorities, are presented. In the share of the value of the contracts signed during 2016, Governmental - budgetary organizations participate with 84.73%, public companies with 14.62% while other authorities participate with only 0.65% in the total value of the signed contracts. Over the years, a comparison shows that Government Institutions financed by the State Budget participate in the largest amount of public signed contracts in comparison to public companies and other authorities.

Given that, these types of framework contracts have begun to be used by all CAs, with particular emphasis being placed on contracting authorities such as the Central Procurement Agency, Kosovo Energy Corporation J.S.C., Post and Telecommunication of Kosovo J.S.C. and the other authorities. The value of these contracts is impossible to be specified since these contracts are mostly signed with unit price, but we can conclude that their value is high as we mainly deal with supplies such as derivatives and services such as property security, maintenance of objects etc., which reach a considerable amount in procurements developed in Kosovo.

#### 4. Conclusions and recommendations

As seen from above, public framework contracts are very useful tools to meet the needs of the Contracting Authorities. However, we must bear in mind that public framework contracts cannot be used to avoid normal public procurement rules. All normal procedures must be applied when concluding a public framework contract.

This means that the open procedure should be implemented according to the LPP, should be published and be based on all required procedures and principles and the Articles of the LPP.

Minimize, as far as possible, the use of negotiated procedures as well as small and minimal value contracts, using public framework agreements as well as centralized procurements;

Assistance in the implementation of primary and secondary legislation at the municipal and central level, training and mentoring in the monitoring of the contracts, and counselling on the regular use of framework contracts.

Kosovo contracting authorities shall apply procurement procedures and rules that promote an efficient procurement, based on contemporary procurement practices and new technology, such as framework agreements and electronic procurement.

Increase access to information regarding public tenders and, in general, regarding public procurement; and

Raise awareness and knowledge among contracting authorities, economic operators, public procurement institutions and the general public.

Tender security and fulfilment. Since it is not known the exact amount of goods, works or services to be procured (a rough estimate of them should be conducted), tender security cannot be made in percentage, therefore an approximate amount in monetary value should be specified (if the security will be applied) and which is based on the expected amount of the contract. In the case of multi-operator framework contracts, bid security is only required in the first phase and not in the mini-competition phase.

Use of Standard Documents. The standard documents for procurement procedures - Framework contracts with one and more operators - should be used and compiled. These standard documents are mandatory for use and should be used fairly by deleting the parts that are not applied (such parts are highlighted) and completing the required parts depending on which variant is applied (with one or more operators).

## 5. Bibliography and References

- Ministry of Finance: Mid Term Expenditure Framework 2016 -2018, Prishtina, 2015.
- Public Procurement Regulatory Commission: National Public Procurement Strategy 2015-2020, Prishtina, 2015.
- World Bank, UNEP, IAPSO: Sustainable Procurement Training Package, 2004/2005.
- Sigma: Public Procurement Manual, 1996.
- Sigma: Training of Trainers in Public Procurement, 1999.
- Hoxha, S: Bazat e Prokurimit Publik, Prizren, 2016.
- Duli, I: Prokurimi Publik në Kosovë, Prishtinë, 2008.
- Duli, I: Prokurimi Publik në Kosovë – Një dekadë e gjysmë, Prishtinë, 2017.
- OECD: Government at a Glance 2015, OECD Publishing, Paris, 2015.
- PPRC: Reports on Public Procurement Activities in Kosovo for 2006 - 2016, Prishtina, 2016.

# **The Investigation of Perception of Psychological Contract Breach and Organizational Silence Behaviours In The Context of Demographic Characteristics: Case of Kilis State Hospital<sup>3,4</sup>**

Orhan Balikci, Ozlem Yasar Ugurlu

## **1. Introduction**

Organizations have to keep pace with dynamic internal and external environment in order to survive (Dewe & Kompier, 2010). This dynamic environment leads to uncover new terms related to business relationships. Psychological contract and organizational silence are one of these new terms. Both of them effect on organizational performance. For this reason, employers, managers and coworkers need to know these elements and try to keep them under control.

The theory of psychological contract plays a key role in understanding the relationship between individuals and organizations (Dahlke, 2017) and it provides an effective framework for defining the modern employment relationship. It has more properties then written contracts and removes the boundaries in written contracts.

Organizational silence is one of the biggest blocks which organizations faces while using their human resources effectively. Because of this reason, for an organization to survive, individuals in an organization should not hide their ideas, opinion or feelings and share with each other and their organization (Vakola & Bouradas, 2005).

With these reasons, this study covers analyzes which investigating perceived psychological contract breach and organizational silence behaviour of health employees in Kilis State Hospital.

## **2. Definition of The Term Psychological Contract**

Farnsworth refers contract as a group of verbal or written promises made, by the one party to the other party in a reciprocal relationship (Robinson & Rousseau, 1994, p. 245). Contracts are basement in organizations to create consensus between two sides to contract as employee and employer (Rousseau & Parks, 1992, p.2).

The seeds of change take root in organizations and new psychological contracts are developing between organizations and their members. The traditional contract that existed between the organization and the employee is no longer effective (Sims, 1994, p. 374).

“Note that these are beliefs or perceptions regarding promises and acceptance. Each party believes that both parties have made promises and that both parties have accepted the same contract terms. However, this does not necessarily mean that both parties share a common understanding of all contract terms. Each party only believes that they share the same interpretation of the contract” (Robinson & Rousseau, 1994, p. 246).

There are different definitions made by researchers and each researcher proposes distinct perspective. The psychological contract is generally defined as explicit and implicit promises between employer and employee and beliefs about employment relationship between them (Rousseau & Tijoriwala, 1998, p. 679). The term “Psychological Contract” is firstly used by Chris Argyris. He observed the relationship between employees and a foreman, and then he called this relationship as a

---

<sup>3</sup> This paper was presented as a oral presentation at XVI. European Conference on Social and Behavioral Sciences, May 10-12, 2018, Prizren, Kosovo and based on of master thesis of Orhan Balıkçı.

<sup>4</sup> This paper was supported by Scientific Research Project Coordination Unit of Gaziantep University. Project Grant Number: İİBF.YLT.16



psychological work contract (Taylor & Tekleab, 2004, p. 254). After Chris Argyris, some researchers developed new definitions. Levinson et al. state psychological contract emerges from expectations regarding employment relationship in implicit and unspoken ways (Levinson et al, 1962, p. 27). Schein puts forth a definition, refers to it as the interaction between two sides in waiting with psychological dynamics (Taylor & Tekleab, 2004, p. 255). Like Levinson's definition, Schein defines it as "a group of unwritten reciprocal expectations between an individual and an organization" (Guest, 1998). Kotter defines the psychological contract as an implicit contract between an individual and his organization which specifies what people expect to give and receive from each other in their relationship (Kotter, 1973). "In a psychological contract, consistency between what is promised (or understood) and what is received is an issue" (Rousseau, 1989).

#### *Psychological Contract Breach*

The problem here is that equilibrating between what employee promises and what he/she receives in return (Rousseau, 1989, p. 126). Perceived breach refers to understanding that situation which an individual's organization fails to fulfill the promise given within the scope of psychological contract although the individual makes contribution as he/she promises. For this reason, whether this situation causes to violation bases on individual's meaning of the breach in his/her mind (Morrison et al, 1997, p. 231).

Perceiving breach is a subjective aspect. It literally depends on the meaning of breach in the individual's mind. Although sometimes perceived breach is a result of true contract breach, sometimes it is not. In fact, there may not be a real breach; however, the employee assumes that the given promises are not fulfilled. Not giving clear promises by employers increases the gravity of this situation (Robinson & Morrison, 2000, p. 526).

### **3. Definition of Organizational Silence**

Morrison and Milliken (2000) coined the term silence in management literature. That paper was the first using the term silence. They use that term to describe collective-level silence of employee. Then, Pinder and Harlos (2001) defined employee silence in their paper as "the withholding of any form of genuine expression about the individual's behavioural, cognitive and/or affective evaluations of his or her organizational circumstances to persons who are perceived to be capable of effecting change or redress" (p. 334). Employee silence is to withhold thoughts in an individual level. On the other hand, organizational silence is collective level silence.

In management literature, three forms of silence are mentioned. These are acquiescent silence, defensive silence and prosocial silence.

When individuals do not actively contact with colleagues in organization, we cannot describe this as silence. The only absence of voice is not characterized as silence. Conceptualization of silence is limited with situation in which individual has relevant feelings, thoughts, opinions and he/she does not prefer to share them with co-workers. This is so important that individual has relevant ideas and hides or do not put them into words (Dyne et al., 2003, p. 1367).

Acquiescent Silence includes disjoint behaviours and is classified as passive behaviour. Individuals silently accepts the situation they are in and do not attempt to change that situation. Because they does not believe they can change things (Dyne et al., 2003, p. 1367)

Defensive silence is defined in management literature as deliberate omission (Pinder & Harlos, 2001). Individual withholds relevant ideas, information, or opinions to protect themselves from external threats. When compared to acquiescent silence, it is more proactive and conscious behaviour. While acquiescence is passive acceptance, defensive silence is based on fear of receiving bad response from co-worker. Thus, individual takes into all risks and alternatives before behaving so (Dyne et al., 2003, p. 1367).

In prosocial silence, individuals hide related ideas, opinions, feelings or remains silent to be useful to other people and organization or protect them. The most important difference of prosocial silence from other silence is that individuals behave in that way to protect other people instead of oneself. It is a conscious decision and includes all possible consequences of alternatives like defensive (Dyne et

al., 2003, p. 1368). Dyne et al. (2003) stated that although the three forms of silence assume the employee is intentionally withholding relevant ideas, information, and opinions and although the three forms of silence provide the same behavioural indicators (no speech acts), these behaviours can be differentiated based on the extent to which employee motive is more or less passive versus proactive and the extent that proactive behaviour is primarily self-protective versus other-oriented. Table 1 shows types of silence and examples of them.

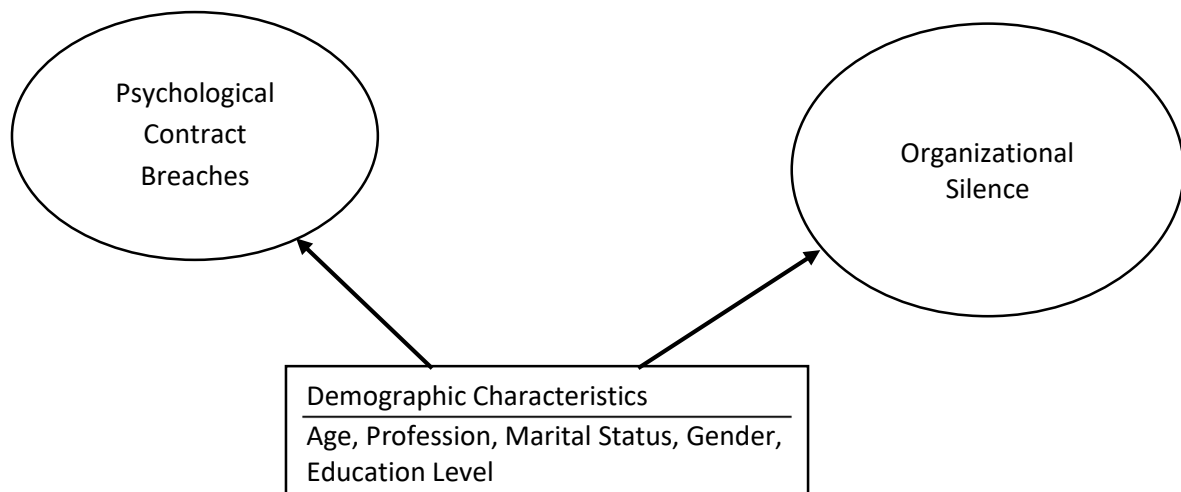
**Table 1.** Examples of specific types of silence (Dyne et al., 2003)

<div> <b>Type of Behaviour Employee</b>  <b>Employee Motive</b> </div>	<b>EMPLOYEE SILENCE</b> Intentionally withholding work-related ideas, information, and opinion
<b>Disengaged Behaviour</b> Based on Resignation Feeling unable to make a difference	<b>ACQUIESCENT SILENCE</b> Examples: Withholding ideas based on resignation Keeping opinions to self-due to low self-efficacy to make a difference
<b>Self-Protective Behaviour</b> Based on Fear Feeling afraid and personally at risk	<b>DEFENSIVE SILENCE</b> Examples: Withholding information on problems based on fear Omitting facts to protect the self
<b>Other-Oriented Behaviour</b> Based on Cooperation Feeling cooperative and altruistic	<b>PROSOCIAL SILENCE</b> Examples: Withholding confidential information based on cooperation Protecting proprietary knowledge to benefit the organization

#### 4. Purpose, Importance and The Hypothesis of The Study

Psychological contract and organizational silence are one of issues effecting organizational performance. To reach organizational goals efficiently, these variables have to be under control and managed by employers or coworkers.

This study aims to reveal whether perceived psychological contract breach and organizational silence behaviour show difference according to demographic characteristics. In this context, the conceptual model of the research was shown in Figure 1.



**Figure 1:** Model of the study

In order to reveal whether the variables of study show difference according to demographic characteristics, hypotheses were developed in below:

H<sub>1</sub>: There is a statistically significant difference between psychological contract breach perceptions of employees having different demographic characteristics.

H<sub>1a</sub>: There is a statistically significant difference between psychological contract breach perceptions of male and female employees.

H<sub>1b</sub>: There is a statistically significant difference between psychological contract breach perceptions of married and single employees.

H<sub>1c</sub>: There is a statistically significant difference between psychological contract breach perceptions of employees at different ages.

H<sub>1d</sub>: There is a statistically significant difference between psychological contract breach perceptions of employees with different education levels.

H<sub>1e</sub>: There is a statistically significant difference between psychological contract breach perceptions of employees of different professions.

H<sub>2</sub>: There is a statistically significant difference between organizational silence behaviours of employees having different demographic characteristics.

H<sub>2a</sub>: There is a statistically significant difference between organizational silence behaviours of male and female employees.

H<sub>2b</sub>: There is statistically significant difference between organizational silence behaviours of married and single employees.

H<sub>2c</sub>: There is statistically significant difference between organizational silence behaviours of employees at different ages.

H<sub>2d</sub>: There is a statistically significant difference between organizational silence behaviours of employees with different education levels.

H<sub>2e</sub>: There is a statistically significant difference between organizational silence behaviours of employees of different professions

This study contributes to literature as the first study examining perceived psychological contract breach and organizational silence behaviours of health employees as far as literature is concerned.

## 5. Methodology

A survey was conducted to 300 employees working in Kilis State Hospital. Sample of the study covers nurses and doctors who work in Kilis State Hospital. 55 doctors and 245 agreed to participate in the survey.

In the first section of the questionnaire, demographic questions such as gender, marital status, age, education, experience in current profession, profession etc. placed. In the second section of the form, psychological contract breach and violation scale was used. It was developed by Robinson & Morrison (2000). The scale is one dimension. Turkish version of the scale was taken from Çetinkaya (2014) and the same version was used by Erdoğan (2015). It includes 9 questions on the five-point Likert scale, from strongly disagree to absolutely agree.

The third section contains organizational silence scale. The scale was taken from Dyne, Ang, & Botero (2003). The scale has three sub dimensions as acquiescent silence, defensive silence, and prosocial silence. It comprises of 15 questions on the five-point Likert scale, from strongly disagree to absolutely agree. Turkish version of the scale was taken from Oruç (2015).

Data gathered from the survey was analyzed in SPSS 22. To reveal whether perceived psychological contract breach and organizational silence behaviour show differences according to demographic characteristics, T test and One Way Anova was used in SPSS 22.

## 6. Findings

Demographic characteristics of the sample was shown in Table 2. Most participants are between 18 and 25 years of age. 39% of them are women and 61% are men. 49% (147) of the participants are between 18 and 25, 29% (89) of them are between 26 and 35. 23%(71) of the participants are high school graduates, 77% (229) have bachelor's degree. 65% of participants have between 0 and 5 years of experience in current profession. Demographic characteristics of the sample group are presented below:

**Table 2.** Demographic characteristics of the sample

Demographic Characteristics	Number of Participants (N)	Percent ages (%)	Demographic Characteristics	Number of Participants (N)	Percent ages (%)
<b>Gender</b>			<b>Marital Status</b>		
Male	117	39	Married	143	47
Female	183	61	Single	157	53
<b>Total</b>	<b>300</b>	<b>100</b>	<b>Total</b>	<b>300</b>	<b>100</b>
<b>Age</b>			<b>Education</b>		
18-25	147	49	High school	71	23
26-35	89	29	Undergraduate/Graduate	229	77
36-45	53	17			
46-55	11	3			
<b>Total</b>	<b>300</b>	<b>100</b>	<b>Total</b>	<b>300</b>	<b>100</b>
<b>Profession</b>			<b>Experience in Current Profession</b>		
Doctor	55	19	0-5	195	65
Nurse	245	81	6-10	55	18
			11-15	15	5
			16+	35	11
<b>Total</b>	<b>300</b>	<b>100</b>	<b>Total</b>	<b>300</b>	<b>100</b>

### 6.1 Investigation of Perceived Psychological Contract Breaches and Demographic Characteristics

T test was applied to determine if there is statistical difference between perceived psychological contract breaches of males and females. The result was seen on Table 3.

**Table 3.** Independent samples T test results for gender and perceived psychological contract breaches

Scale	Gender	N	Mean	Sd.	df	t	p
Perceived Psychological Contract Breaches	Male	18	2,647	1,0566	29	-1,527	0,127
	Female	11	2,829	0,9139			

It was not determined any statistical difference between perceived psychological contract breaches of male and female groups on psychological contract breach perception ( $t=-1,527$ ;  $p>0,05$ ).

T test was used to analyze whether the psychological contract breaches perception varies according to marital status. The result was shown in Table 4.

**Table 4.** Independent samples T test results for marital status and perceived psychological contract breaches

Scale	Marital Status	N	Mean	Sd.	df	t	p
Perceived Psychological Contract Breaches	Single	157	2,7924	0,94084	298	-1,337	0,182
	Married	143	2,6371	1,06997			

No statistical difference was found between single and married groups regarding perceived psychological contract breaches ( $t=-1,337$ ,  $p>0,05$ ).

One-way Anova was used to analyze whether perceived psychological contract breaches differ according to age groups. The result was provided in Table 5.

**Table 5.** Results of one-way Anova for age and perceived psychological contract breaches

	Sum of Squares	df	Mean Square	F	p
Within Groups	0,478	3	0,159	0,156	0,926
Between Groups	301,980	296	1,020		
Total	302,459	299			

The result signed that no statistical difference between psychological contracts breach perception of age groups ( $F=0,156$ ,  $p>0,05$ ).

T test was used to reveal effect of education level on Perceived Psychological Contract Breaches. Results of T test on perceived psychological contract breaches was demonstrated on Table 6.

## The Investigation of Perception of Psychological Contract Breach

**Table 6.** Results of T test on perceived psychological contract breaches of different education levels

Scale	Education Level	N	Mean	Sd.	df	t	p
Perceived Psychological Contract Breaches	High School	71	2,7924	0,12946	99,475	0,709	0,480
	Undergraduates/ Master	229	2,6371	0,06859			

Average of undergraduates and graduates is 2,79, average of high school graduates is 2,63. As a result of the T test, there are no significant differences in the perceptions of psychological contract breaches among employees at different levels of education ( $t=0,709$ ,  $p>0,05$ ).

T test was used to reveal the effect of profession on perceived psychological contract breaches. Results of T test on the effect of profession on perceived psychological contract breaches was demonstrated on Table 7.

**Table 7.** Result of T test for professions and perceived psychological contract breaches

Scale	Profession	N	Mean	Sd.	df	t	p
Perceived Psychological Contract Breaches	Doctor	55	2,8343	1,03104	78,457	0,928	0,356
	Nurse	245	2,6923	1,00030			

The result showed a statistically significant difference between psychological contract breach perceptions of employees of different professions was not determined ( $t=0,928$ ,  $p>0,05$ ).

**6.2 Investigation of Organizational Silence and Demographic Characteristics**

T test was applied to determine whether organizational silence behaviour differs according to gender. The result can be seen in Table 8.

**Table 8.** Result of T test for gender and organizational silence

Scale	Gender	N	Mean	Sd.	df	t	p
Organizational Silence	Male	183	2,5803	0,90293	251,18	1,147	0,252
	Female	117	2,4593	0,88412			

The result indicated that there is not any significant difference between organizational silence behaviours of male and female groups. ( $t=1,147$ ,  $p>0,05$ ).

An independent sample T test was performed to check whether the organizational silence behaviour of employees varies according to marital status. The result was given in Table 9.

Scale	Marital Status	N	Mean	Sd.	df	t	p
-------	----------------	---	------	-----	----	---	---

<b>Organizational Silence</b>	Married	14	2,411	1,004	29	2,264	0,024
	Single	15	2,644	0,771			
		7	2	45	8		

**Table 9.** Result of T test for marital status and organizational silence

Significant difference was found between marital status of participants in relation to organizational silence ( $t=-2,264$ ,  $p<0,05$ ). Single participants showed more silence than married participants.

One-way Anova was used to compare age groups. One-way Anova results can be seen in Table 10.

**Table 10.** Result of one-way Anova for age and organizational silence

	Sum of Squares	df	Mean Square	F	Sig.
Within Groups	3,114	3	1,038	1,296	0,276
Between Groups	236,988	296	0,801		
Total	240,102	299			

According to the results, there was no statistical difference between the age groups ( $F=1,296$ ,  $p>0,05$ ).

T test was used to determine whether it differs according to the level of education. Result of t test for education level and organizational silence was given in Table 11.

**Table 11.** Result of T test for education level and organizational silence

Scale	Marital Status	N	Mean	Sd.	df	t	p
<b>Organizational Silence</b>	High School	7	2,7619	0,9104	97,175	2,3431	0,0211
	Undergraduate /Master	29	2,4596	0,8745			

Mean of high school graduate participants is 2,7619, mean of undergraduate/master graduate participants is 2,4596. It was found that statistical difference between organizational silence behaviour of high school graduate participants and undergraduate/master graduate participants ( $t=2,3431$ ,  $p<0,05$ ).

Lastly, to reveal difference between organizational silence behaviours of different professions, T test was applied. The result was provided in Table 12.

**Table 12.** Result of T test for profession and organizational silence

Scale	Gender	N	Mean	Sd.	df	t	p
<b>Organizational Silence</b>	Doctor	5	2,7490	0,7880	89,647	2,1816	0,031
	Nurse	2	2,4846	0,9130			

As a result of the analysis, there was a significant difference between doctor and nurse participants ( $t=2,1816$ ,  $p<0,05$ ). Doctors' mean is 2,7490, nurses' mean is 2,4846. It means doctors prefer to remain silent more than nurses in the organization.

## 8. Discussion

In the hospital that was investigated, perceived psychological contract breaches of health employees do not show difference according to any demographic characteristics,

The results of Tarakcı and Akin (2017) parallel with the result of this study. Tarakcı and Akin (2017) says perceived psychological contract breaches of individuals did not show difference according to gender, age, marital status and education level. Also, according to the result of Aslan and Boylu (2014), perceived psychological contract breaches of individuals did not differ according to gender, education level.

The results of Bağ and Ekinici (2018) show silence behaviours of individuals differs according to gender and profession, Şahin and Yalçın says silence behaviours of individuals differs according to age, education level, experience in the profession and experience in the organization. These results parallel with the result of this study.

Single individuals show more silence behaviours compared to married individuals. The reasons can be listed as follows: they need a job more, fast and easy adaptation to long working hours, high working tempos and hard-working conditions, high job security as a public employee. On the other hand, high school graduates prefer to be more silent than university graduates. This may be related to these reasons: they have limited employment opportunities as a high school graduate; the public sector offers better opportunities than the private sector, the good salary for a high school graduate, limited institutional change possibilities. In addition to these results, doctors rated the silence higher than nurses. Possible reasons are comfortable working conditions of public hospital compared to private hospital, career opportunities, and some legal obligations such as compulsory service.

Suggestions to be made are can be listed as:

- The goals of the hospital and the employees should be compatible each other.
- Communication channels should be kept open for employees to get ideas
- The hospital should consider the educational levels, marital status of employees to manage them effectively and try to satisfy the expectations from these points

## 9. References

- Bağ, D., & Ekinici, C. E. (2018). Organizational silence behaviors of faculty members, their causes and consequences. *Journal of Human Sciences*, 15(1), 567–580.
- Dahlke, V. (2017). The role of psychological contracts in the relation between job characteristics and attitudinal employee outcomes .
- Dewe, P., & Kompier, M. (2010). *Mental Capital and Wellbeing : Making the most of ourselves in Mental Capital and Wellbeing : Making the most of ourselves in the 21st century. The Government Office for Science*. Retrieved from [http://www.bis.gov.uk/assets/bispartners/foresight/docs/mental-capital/learning\\_through\\_life.pdf](http://www.bis.gov.uk/assets/bispartners/foresight/docs/mental-capital/learning_through_life.pdf)
- Dyne, L. Van, Ang, S., & Botero, I. C. (2003). Conceptualizing employee silence and employee voice as multidimensional constructs. *Journal of Management Studies*, 40(6), 1359–1392.
- Guest, D. E. (1998). Is the psychological contract worth taking seriously? *Journal of Organizational Behavior*, 19(7), 649–664.
- Karacaoğlu Aslan, F., & Boylu, Y. (2014). Örgütsel Sinizim ve Psikolojik Sözleşme İhlali Arasındaki İlişkiyi Belirlemeye Yönelik Bir Araştırma. *Journal of Recreation and Tourism Research*, 1(2), 33–45.
- Kotter, J. P. (1973). The Psychological Contract: Managing the Joining-Up Process. *California Management Review*, 15(3), 91–99.
- Levinson, H., Price C.R., Munden K.J., M. H. J. & S. C. M. (1962). Men, Management and Mental Health. *Personnel Management Bookshelf*, 204(4965), 1257–1257.
- Pinder, C. C., & Harlos, K. P. (2001). *Employee Silence: Quiescence And Acquiescence As Responses To Perceived Injustice. Research in Personnel and Human Resources Management* (Vol. 20).
- Robinson, S. L., & Morrison, E. W. (2000). The development of psychological contract breach and violation: a longitudinal study. *Journal of Organizational Behavior*, 21(5), 525–546.
- Robinson, S. L., & Rousseau, D. M. (1994). Violating the psychological contract : not the exception but the norm. *Journal of Organizational Behavior*, 15(December 1992), 245–259.
- Rousseau, D. M. (1989). Psychological and implied contracts in organizations. *Employee Responsibilities and Rights Journal*, 2(2), 121–139.



Rousseau, D. M., & Parks, J. M. (1992). The Contracts of Individuals and Organizations. *Research in Organizational Behavior*.

Rousseau, D. M., & Tijoriwala, S. a. (1998). Assessing psychological contracts: Issues, alternatives and measures. *Journal of Organizational Behavior*, 19(7), 679–695.

Sims, R. R. (1994). Human Resource Management's Role in Clarifying the New Psychological Contract. *Human Resource Management*, 33(3), 373–382.

Şahin, H., & Yalçın, B. (2017). Örgütsel Sessizlik Ve Çalışanların Performansları Arasındaki İlişki: İzmir İli Çiğli İlçesi Devlet İlkokullarına İlişkin Bir Araştırma. *Journal of Management and Economics Research*, 15(3), 60–90.

Tarakcı, H., & Akın, A. (2017). Psychological Contract Breach and Organizational Cynicism: Corum Province Example. *The Journal of International Social Research*, 10(52), 1222–1230.

Taylor, M. S., & Tekleab, a G. (2004). Taking stock of psychological contract research: Assessing progress, addressing troublesome issues, and setting research priorities. *The Employment Relationship: Examining Psychological and Contextual Perspectives*.

Vakola, M., & Bouradas, D. (2005). Antecedents and consequences of organisational silence: an empirical investigation. *Employee Relations*, 27(5), 441–458.

# A Meta-Intuitive Analytical Approach to Facility Layout Problem

Kamil Bircan

## 1. Introduction

*Layout designing* (LD) is a systematic process of deriving a favorable outcome in a space by arranging all the given modules while satisfying all the constraints. Businesses in US spend around \$1 trillion just on facilities planning annually (Ahmad, 2005). These designed layouts directly affect around 20% of a business's operational costs. Therefore, the importance of designing new tools for laying out the facilities to increase their efficiency and effectiveness is quite a lot. The layout design process is a very sophisticated process that requires unparalleled decision analysis and simultaneous design support through out the process.

The process of arranging the physical location of the facilities like machines, tools, work centers, distribution centers etc for manufacturing or other operations is known as *Facility Layout Problem* (FLP). The laying out of these and other countless facilities in every manufacturing operation is one of the biggest and most radical strategic issues. Modifying or rearranging the pre-existing layouts can cost a substantial amount of money (Singh & Singh, 2010). However, efficient laying out can reduce the overall costs and improve the overall efficiency of the whole operations substantially (Tomkins et al., 2003).

A facility layout planner's job is to create a seamlessly efficient design by using the given information such as overall production capacity required, processing routes, machines and their capabilities etc. Around 20% to 50% of the overall costs are related to the material handling. Therefore, many layout planners use the criteria of minimizing these material costs, when they are designing the facility layout (Francis & White, 1974). It was actually derived as a *Quadratic Assignment Problem* (QAP) initially (Koopmans & Beckman, 1957). To solve facility layout problems on a smaller scale, methods like branch and bound technique (Salimampur & Jafari, 2008) and cutting planes method (Singh & Sharma, 2006) can be used to get favorable results. Nevertheless, to achieve success on a large scale, more detailed, layered and heuristic methods like simulated annealing, genetic algorithm, ant colony algorithms and other techniques based on QAP should be used (Misevicius, 2003; Lee et al, 2003).

The pre-existing approaches used in FLP are composed of inflexible design algorithms that are quite simplistic in nature. There is no certain methodology present in the literature that can be followed to get favorable results using FLP. A design planner has to deal with a lot of trade-offs at every stage in the facility design planning. However, a superior layout should be agile, flexible and adapt to changes in the industry. Unfortunately, most of the design methods currently present are not flexible and robust (Abdinnour-Helm & Hadley, 2000). With the help of extremely powerful soft computing tools, many tools have been developed to solve the layout design problems. These tools include decision support systems, fuzzy logic, expert systems, QAP and ant colony algorithms etc (Karray & De Silva, 2004).

Distribution of various facilities in every industry or manufacturing unit is very significant as it directly induces the efficiency, manufacturing costs, overall lead times, productivity and many other intrinsic and extrinsic costs (Kouvelis et al., 1992). Frazzle, (1986) did an extensive research to come up with some important figures in a traditional manufacturing facility that are very important to consider when designing a facility layout. Frazzle pointed out that the material handling system used in the facility accounts 25% of all the employees in the company, it also accounts for 55% of the total space, and 87% for total production time. Therefore, it is considered that around 20 to 50% of the production cost comes from material handling. It is quite a high number and it can be minimized by around 30% by a more efficient facility layout design (Francis & White, 1974). Another research done by Tompkins et al. (2003), suggested that around 8% of the total GNP of United States Of America is used on building and developing new facilities. The basic and fundamental principle of lean management called continuous improvement should also be considered when designing a new facility layout as around \$250 billion are spent every year just on facility planning and re-planning in the

United States of America alone. This figure goes way up if one adds up the money spent on facility planning around the globe.

## 2. Literature Review

There is a large amount of literature available on the topic layout design and the concerns that come with it. Previously, this very problem of layout designing has been also referred to as block placement (Ahmad, 2005), layout optimization (Cohoon et al., 1991), facilities layout (Tam et al., 2002), topology optimization (Mir & Imam, 1992), plant or machine layout (Hassan & Hogg, 1994), facility partitioning (Moon & Kim, 1998) and bin-packing (Jakobs, 1996) etc.

In FLP, all the given activities and the elements are assigned a certain space in any given perimeter. Therefore, the layout creates a relationship between the given objectives and the activities (Welgama et al., 1995). The facility layout also has a link with the intangible things like overall safety and the environment. FLP is based on many factors including political, social, safety, economical, communication and commutation (Meller & Gau, 1996). An appropriately designed facility increases the overall efficiency and the productivity of the whole operations which results in increased profits for the organization (Norman & Smith, 2002). As the advantages of an adequately designed facility are huge, a lot of research and investment is allocated to it. Different kinds of formulations for FLP are present in the literature based on extensive research. In this paper, the focus will be on describing only two of them; *Quadratic Assignment Problem (QAP)* and *Ant Colony Algorithm (ACA)*.

QAP focuses on dealing with certain decisions related to allocating a location to all the qual area modules. The QAP approach assigns one and only one module to all the given locations. It has ana NP-Complete nature, so procuring an optimal solution for more than 16 modules can be a little difficult (Meller & Gau, 1996). However, almost all of the pre-existing formulations of FLP have a few limitations which makes them incompatible in real life scenarios. For instance, the QAP formulation does not allow to change the shape of the given modules in a facility layout (Deb & Bhattacharyya, 2004). These formulations are backed up by highly complicated mathematical models which do not offer a lot of advantage in the practical world when they are used to deal with real facility layouts. They also rely heavily on exact and precise parameter values, which are very hard to measure accurately and if there is even a tiny error in their calculation, the resulting layout will be flawed as well (Mir & Imam, 1992). Usually, this kind of data is only available to design a simplified layout in theory only for training and learning purposes. When a large sized layout problem with uncertain issues and parameters is given, such formulations tend to fail to design an optimal layout.

Ant colony algorithm or optimization is derived from the movements of ants. Their systematic movement from one point to another using the shortest distance patch from their colony to the food is quite unique. Although, it can be said that one can never be so sure that the ants are always looking for the shortest distance, but this is usually what they achieve most of the time (Monteiro et al., 2011). Ants leave a substance called pheromone throughout the way when they are going towards their food source, and the latter ants choose the path with the highest concentration of the pheromone. This system of movement from one point to another allowed Dorigo and Stutzle to develop the Ant system to resolve a famous NP-Hard Problem called The Travelling Salesman (Dorigo et al., 1999).

After the efforts of Dorigo and Stutzle in forming the first ever ant colony algorithm, many improvements have been made in the algorithm over time. However, the biggest development in the algorithm would definitely be the introduction of the Metaheuristic approach in the Ant Colony Optimization (Dorigo & Stutzle, 2003). The introduction of Daemon in the AS algorithm also helped to improve the overall usability of such algorithm. The Daemon allows to execute solutions to all the operations using the global knowledge. It also controls the feasibility of every solution. For example, giving extra amount of pheromone to the best possible outcome in the algorithm.

Different Ant Colony Optimization strategies are used to solve facility layout problems every now and then. However, most of them consider FLP as a QAP. Usually the FLP is represented using the slicing tree structure. The Ant Colony Algorithm provides the best known solution to different layout problems. It uses nine different types of searches to increase the efficiency of the algorithm.

### 3. Mathematical Model

The mathematical model for QAP are taken from Azarbonyad & Babazadeh, (2014) and are as follows:

*parameters*

$n$  total number of facilities and locations  
 $f_{ik}$  flow of material from facility  $I$  to facility  $k$   
 $d_{jl}$  distance from location  $j$  to location  $l$

*Variable*

$x_{ij} = \begin{cases} 1 & \text{If facility } I \text{ is assigned to location } j \\ 0 & \text{Otherwise} \end{cases}$

$$\text{Min} \quad \sum_i^n \sum_j^n \sum_k^n \sum_l^n f_{ik} d_{jl} x_{ij} x_{kl} \quad (1)$$

$$\sum_j^n x_{ij} = 1 \quad \forall i \quad (2)$$

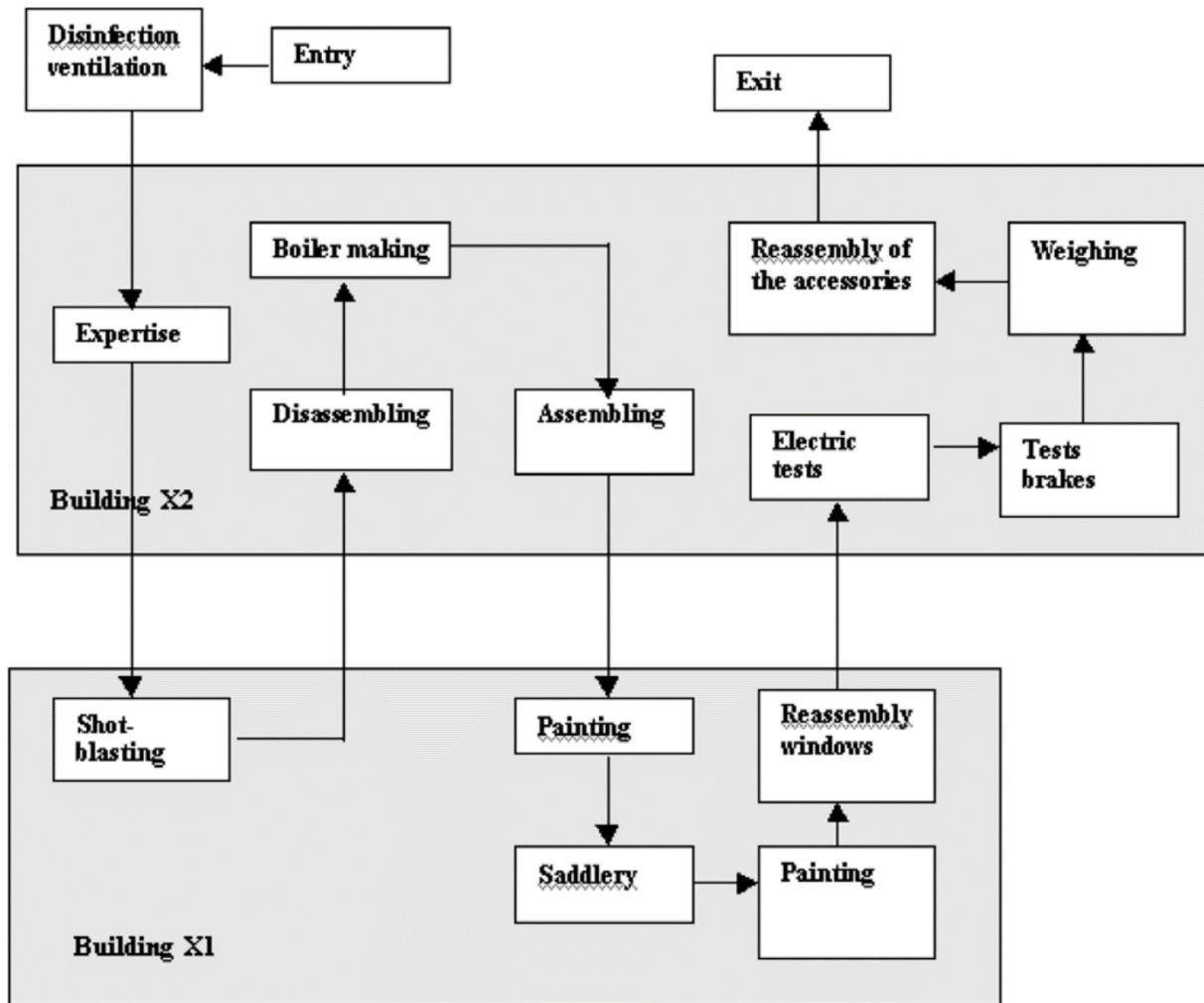
$$\sum_i^n x_{ij} = 1 \quad \forall j \quad (3)$$

$$x_{ij} \text{ is binary} \quad (4)$$

(1) is the objective function and it helps to minimize the distance between different given facilities. (2) and (4) constraints ensure that each of the facility is assigned to one and only one location. Constraint (3) and (4) helps in making sure that each location 'j' has only facility assigned to itself. QAP is formulated as an integer optimization problem using a quadratic objective function.

### 4. Problem Description

The problem is based on a factory which manufactures agricultural machines mainly vehicles like tractors, seeders and other heavy machinery. The factory is composed of many buildings and every vehicle/machinery that is manufactured there crosses at least two buildings X1 and X2 as shown in the figure. For the sake of the problem formulation and then putting it into a model, certain zones called car location are formed where different maintenance and assembly tasks are performed. All the cars are produced in batches and they also travel in sequences in the manufacturing facility. A transporter that moves on a fixed trajectory is used to carry the vehicles. Rail lines are used to move these vehicles using the transporter in the manufacturing facility buildings. There are certain manufacturing tasks that require long period of time, occupying locations for longer time. They are also known as the bottlenecks in operations management. Due to the capacity constraint, certain vehicles will have to move out of the facility to give room for new ones to enter.



**Figure 1.** The current layout of manufacturing facility

The current layout of the manufacturing facility is constraining for the production and planning of the agricultural machinery and vehicles. The problem is to develop an optimal layout in one of the buildings to minimize the material handling and movement of goods. In simple words, a better resource configuration should be developed for one building of the manufacturing facility to optimize the flow of all resources.

If  $N$  resources are allotted to  $N$  sites in one of the buildings, and the distance is  $D$ . Every element  $dk,w$  will represent the distance between two locations,  $k$  and  $w$  respectively, where  $k=1,2,3,\dots,N$ . Similarly a flow matrix  $F$  for  $fi,j$  elements where the flow of cost between two resources  $i$  and  $j$  will be shown for  $i,j=1,2,3,4,\dots,N$ .

The latter one i.e. the flow cost is highly dependent of the number of journeys between any two given resources, in a certain time. Because of the precedence constraints in the problem, the matrix flow will not be considered symmetrical as well. However, the distance matrix will be considered symmetrical as it's calculation is based on the number of vehicles moving in one of the buildings for exchange of goods.

## 5. Formulation Of Quadratic Assignment Problem (QAP)

Using some assumptions, the QAP will be used to solve the given FLP in this paper. In the given problem, the vehicle location sizes are considered identical and also the interval between locations are already established numerical values. That is why, using QAP for the given problem was possible. As

mentioned above, assigning all the facilities to certain locations to reduce the all the costs related to material handling and movement and flows comes under the QAP model.

$f_{i,j}$  represents the respective flow between  $i$  and  $j$  facility. Similarly,  $d_{k,w}$  represents the distance between  $k$  and  $w$  locations. Then,

$$P_{(ij)} = \begin{cases} 1 & \text{if the facility } i \text{ is assigned to the location } j, \\ 0 & \text{else.} \end{cases}$$

Where  $p_{(ij)}$  is a variable.

## 6. Ant Colony Algorithm Model

The following steps are formed under the ant colony algorithm model to deal with the given layout problem:

- 1- Constructing Solutions
- 2- Gathering all the heuristic information
- 3- Updating the Pheromone
- 4- Probability Selection

Every ant in the proposed algorithm is allotted a task  $i$  to a certain location  $j$  ( $i,j$ ). After finishing that, another task is allotted to  $k$  ( $i,k$ ) and so on. A tabu list is formed that illustrate all the sets of tasks assigned to an ant. It also ensures that every task has been allotted to a certain location and no task is left behind without an assigned location.

The cost of the assignment of a given task to its location is calculated by the ants. The flow and distance matrix are used to calculate the total cost of the task. The visibility of the assignment cost is also known as the Heuristic Information.

The cost related to any given assignment ( $i,j$ ) is as follows:

$$C(i, l) = \sum_{s=1}^{l-1} (f_{r(s)i} \times d_{sl} + f_{ir(s)} \times d_{ls}).$$

The following equation shows the pheromone updating mechanism:

$$\tau_{il}(t) = \lambda \tau_{il}(t-1) + \sum_k \Delta \tau_{il}^k,$$

It depicts the quantity of pheromone related to the task assignment  $i$  to the location  $l$ , when  $k$  are the ants used for iteration  $t$ . When an ant chooses to select this assignment, the value of pheromone updating mechanism increases.  $K$  is a parameter in the equation and it is also a scaling factor.

$$\Delta \tau_{il}^k = \sum_k \frac{\text{Bestfit}}{\text{fit}[k]}$$

The above-mentioned equation calculates the rate of change in trail levels of assignments that an ant performs. The smaller the denominator value i.e.  $\text{fit}[k]$ , the greater will the increase in the trail.

$$p_{il}^k = \frac{\alpha \times \tau_{il} + (1 - \alpha) \times \eta_{il}}{\sum_{i \neq \text{Tabu}_k} (\alpha \times \tau_{il} + (1 - \alpha) \times \eta_{il})}$$

The above-mentioned equation depicts the probability of the ant  $k$  selecting task  $i$  and assigning it to location number 1.

## 7. Results

The Visual C++ software was used to implement the algorithm on a Core i7 2.8 GHZ CPU speed PC. Four different parameters were used in the proposed algorithm. Their values are given in the following table. All of these parameters directly affect the overall performance of the proposed algorithm. Many pilot runs were executed to derive the most appropriate parameters. The ant numbers from 1 to 40 were tested, and then AN=20 was selected after compromising on the convergence time and the overall quality of the results. When the Ants Number was fixed, max\_iter=10 was found as the best convergence for it. The alpha value of 0.6 was also calculated in the experiment. Normally, it is around 0.5, but in this experiment it was calculated 0.6, which shows that the solutions formed in the experiment support the pheromone trails more than single ant's path.

**Table 1.** Parameters and Values of Algorithm

Parameters	Values
AN	20
<i>max_iter</i>	10
Alpha	0.6
$t_0$	0

The given problem has 70 locations and 25 of them were considered unstable. 10 of them were standardized locations and the rest of them were specialized locations. The initial conditions for the formed algorithm was the actual resource assignment. The calculations were based on one year data planning. The total cost of the actual layout was 425, but the layout formed by using the algorithm produced a new layout solution with 19.6% improvement. As mentioned in the problem, only six of the tasks were assigned by following an enumeration method. Although, the solution presented by it was the same as produced by the algorithm which ensures its usage to all the similar industrial problems. The same algorithm and its application can be used in the future for the similar problems and scenarios. Increasing the performance of the industry is always the top priority and by using appropriate QAP or ACO algorithms, it can be achieved. As the company grows, more tasks and locations will be added into the layout. Therefore, it is important to test the same algorithm for more locations and tasks.

## 8. Conclusion

In this paper, existing approaches QAP and ACO were used to find the solution for a FLP in an agricultural machinery-manufacturing organization. The map and the details of the facility were provided in the paper above. A brief analysis of the literature was also done before starting the research to understand the given problem and FLP in more detail.

Using QAP to solve FLP is a NP-Complete problem. The results of the research suggest that the used algorithm provides well-suited answer to similar situations. A 19.6% improvement was also recorded in the results section. However, only 6 tasks were assigned in the algorithm. Usually, the operations map of the similar industries has more than six tasks assigned. That is why, resolving FLP in a more and more difficult layout is considered a future scope of this work.

A simplified and well distributed layout of the facility can be obtained by using the Ant Colony Optimization Algorithm and formulating the Pheromone path for the movement of goods and tasks between locations as done in this paper. By doing this, the new layout helps in minimizing the total material handling cost in uncertain demand, which are quite high in every industry.

## 9. References

- Abdinnour-Helm, S., & Hadley, S. W. (2000). Tabu search based heuristics for multi-floor facility layout. *International Journal of Production Research*, 38(2), 365-383.
- Ahmad, A. R. (2005). An intelligent expert system for decision analysis and support in multi-attribute layout optimization.
- Azarbonyad, H., & Babazadeh, R. (2014). A Genetic Algorithm for solving Quadratic Assignment Problem (QAP). *arXiv preprint arXiv:1405.5050*.
- Cohon, J. P., Martin, W. N., & Richards, D. S. (1991). Genetic algorithms and punctuated equilibria in VLSI. In *Parallel Problem Solving from Nature* (pp. 134-144). Springer Berlin Heidelberg.
- Dorigo, M., & Stützle, T. (2003). The ant colony optimization metaheuristic: Algorithms, applications, and advances. In *Handbook of metaheuristics* (pp. 250-285). Springer US.
- Francis R, White J (1974). *Facility layout and location: an analytical approach*. Prentice Hall, Englewood Cliffs, NJ.
- Frazelle, E. H. (1986). *Material handling: a technology for industrial competitiveness*. Material Handling Research Center, Georgia Institute of Technology.
- García-Hernández, L. (2011). Genetic approaches for the unequal area facility layout problem.
- Hassan, M. M., & Hogg, G. L. (1991). On constructing a block layout by graph theory. *The International Journal Of Production Research*, 29(6), 1263-1278.
- Jakobs, S. (1996). On genetic algorithms for the packing of polygons. *European Journal of Operational Research*, 88(1), 165-181.
- Karray, F. O., & De Silva, C. W. (2004). *Soft computing and intelligent systems design: theory, tools, and applications*. Pearson Education.
- Koopmans, T. C., & Beckmann, M. (1957). Assignment problems and the location of economic activities. *Econometrica: journal of the Econometric Society*, 53-76.
- Kouvelis, P., Kurawarwala, A. A., & Gutierrez, G. J. (1992). Algorithms for robust single and multiple period layout planning for manufacturing systems. *European journal of operational research*, 63(2), 287-303.
- Lee, K. Y., Han, S. N., & Roh, M. I. (2003). An improved genetic algorithm for facility layout problems having inner structure walls and passages. *Computers & Operations Research*, 30(1), 117-138.
- Meller, R. D., & Gau, K. Y. (1996). The facility layout problem: recent and emerging trends and perspectives. *Journal of manufacturing systems*, 15(5), 351-366.
- Mir, M., & Imam, M. H. (1992). Topology optimization of arbitrary-size blocks using a bivariate formulation. *Computer-Aided Design*, 24(10), 556-564.
- Misevičius, A. (2003). A modified simulated annealing algorithm for the quadratic assignment problem. *Informatica*, 14(4), 497-514.
- Monteiro, M. S., Fontes, D. B., & Fontes, F. A. (2011, July). An ant colony optimization algorithm to solve the minimum cost network flow problem with concave cost functions. In *Proceedings of the 13th annual conference on Genetic and evolutionary computation* (pp. 139-146). ACM.
- Moon, B. R., & Kim, C. K. (1998). Dynamic embedding for genetic VLSI circuit partitioning. *Engineering Applications of Artificial Intelligence*, 11(1), 67-76.
- Norman, B. A., & Smith, A. E. (2002). Considering uncertainty in unequal area block layout design. *citeseer.ist.psu.edu/271501.html*.
- Singh, S. P., & Sharma, R. R. K. (2006). A review of different approaches to the facility layout problems. *The International Journal of Advanced Manufacturing Technology*, 30(5-6), 425-433.
- Singh, S. P., & Singh, V. K. (2010). An improved heuristic approach for multi-objective facility layout problem. *International Journal of Production Research*, 48(4), 1171-1194.
- Solimanpur, M., & Jafari, A. (2008). Optimal solution for the two-dimensional facility layout problem using a branch-and-bound algorithm. *Computers & Industrial Engineering*, 55(3), 606-619.
- Stützle, T., & Dorigo, M. (1999). ACO algorithms for the quadratic assignment problem. *New ideas in optimization*, 33-50.
- Tomkins J, Bozer Y, Frazelle E, Tanchoco J, Trevino J (2003) *Facility Planning*. John Wiley and Sons, New York.



Welgama, P. S., & Gibson, P. R. (1995). Computer-aided facility layout—A status report. *The International Journal of Advanced Manufacturing Technology*, 10(1), 66-77.

# Aircraft Fleet Management by Quantitative Methods

Abdullah Enes Bolat, Fahrettin Eldemir

## 1. Introduction

The factors that affect the demand for air travel are passenger demand, regulatory and infrastructural changes, and the innovation of new services from existing business models. (Commercial Market Outlook, 2017). Airlines operate in a business with very low profit margins; the typical profit margin in the industry was expected to be around 4-5% in 2017 (IATA, December 2016, para 1). One of the major cost factors is fuel prices, which have increased steadily since the lows seen in 2015. Prices have already started to recover but in the short-term, prices are not expected to reach peak levels of the past (Airbus GMF 2017, p. 12) and the long-term forecasts for crude oil either favor a direct increase in price over time or offer two alternate scenarios (Commercial Market Outlook, 2017, p. 21). Since fuel cost is one of the major constituents of an airline's (operating) costs, this price uncertainty reflects on the profitability expectancy and asset acquirement decisions to be taken. Depending on the type and age of aircraft, the fuel cost can range between 20-25% of the total operating expenses (IATA, December 2016, para 6), though the average was slightly more than 17% worldwide ("IATA Fact Sheet - Fuel", 2017 p. 1).

Crew costs and maintenance costs are the other constituents of the operating costs of airlines. While crew costs do not typically change with the age of the aircraft, maintenance costs do as there are more intensive events occurring at later stages of an aircraft's life cycle. Older aircraft are typically less fuel efficient than the new generation models due to advances in engine technology and aircraft design made over time, with efficiencies of up to 15-20% expected for the A320neo and similar rates for the competitor Boeing 737 MAX (Bhaskara, 2016, para 6). Coupled their higher maintenance costs, older aircraft will more likely be favored to be replaced if the fuel prices increase at the rates expected in the high price scenario.

The growing airline travel market, coupled with the low profit margins driving airlines towards cost savings and efficiency, all drive the demand for new aircraft. Both of the dominant manufacturers (Airbus and Boeing) expect more than 30,000 new deliveries in their 2017 forecasts, of which more than 55% are expected to be for growth and the remaining for replacement (Airbus GMF 2017, p. 39; Commercial Market Outlook, 2017, p. 21).

The airline market and the aircraft market are two markets that are closely related to one another, such that the demand in the airline industry affects the demand for aircraft and therefore the aircraft market. It is no surprise then that aircraft manufacturers are keen on forecasting the demand for air travel (airline market) to be able to forecast the demand for their own market.

There are two major manufacturers of civilian aircraft that are dominant in the market, namely Airbus and Boeing. There are new manufacturers that are aiming to enter this market or have already done so, but have not found much popularity, such as the COMAC C919 that is "aiming to make the first delivery in 2021" (Goh, 2018, para. 1) and the Sukhoi Superjet 100 respectively. There are also several manufacturers of regional aircraft, such as Bombardier and Embraer, some of which are also trying to enter the market by either creating new products that are expected to directly enter the market (as in the case of Bombardier's C-series) or compete with the lower end (capacity-wise) of the civil aircraft in the market by altering their existing models to increase capacity.

### 1.1 Airline Market Growth

Passenger demand is usually measured in Revenue Passenger Kilometers (RPK) or Revenue Passenger Miles (RPM). It is estimated that "air traffic (RPK) doubles every 15 years" (Airbus Global Market Forecast 2017, p. 7) and "year-over-year passenger growth has averaged 6.2%" (Boeing, Commercial Market Outlook 2017, p.7).

Global Economic Growth, usually measured through the Gross Domestic Product (GDP), is one of the key drivers of this demand but is not the only driver of passenger demand. Consumer/personal

income and consumer spending, employment, international trade, domestic investment and the age of the working population are reported as being major drivers in forecasts (Airbus Global Market Forecast 2017) as well as low air fares, higher standards of living, a growing middle class in large emerging markets and the growth of tourism (Commercial Market Outlook 2017).

Stronger economies in emerging markets have also contributed to the growth, with the domestic market in China alone expected to grow nearly 4 times in the next 20 years. The Middle East, Asia Pacific, Africa and Latin American Markets are expected to be the major growth areas for the next 20 years in order of highest growth, with the mature European and US markets expecting growths of 3.4 and 2.4% respectively. (Airbus GMF 2017, p. 26)

Positive regulatory changes also support the growth of the air travel industry. The most obvious example of this is in the case of the Trans-Atlantic Market. The Atlantic (including Europe and the Middle East) and Canada Market is a historically mature market, with an expected average growth of 3% per year between 2017-2037 (FAA, FAA Aerospace Forecast 2017). This number is up from the 6.2% decline in growth experienced in the 2009 crisis and a more or less flat average 2% year on year growth experienced when evaluated in 2012 (Boeing Current Market Outlook 2012). The market has grown steadily since then through bi-lateral agreements (such as the EU-US Open Skies), business model renewals, and the entry of Low Cost Carriers into the market. On a global scale, Open Skies Agreements worldwide have further allowed liberalization to extend beyond the borders of traditionally domestic markets (Commercial Market Outlook 2017). Liberalization has also allowed for flights to previously restricted airspaces such as Cuba and Iran, allowing for growth opportunities.

Another prominent example of regulatory change that has promoted growth in the market is the entry of Low Cost Carriers (LCCs) into the market. "The LCC business model would not have flourished without relaxation of government-regulated airline ticket pricing and heavy new market entrant regulation." (Commercial Market Outlook 2017, p. 9) LCCs operate through the concept of cost minimization to maximize profitability. Most LCCs operate in the short-haul market, which is defined as "flights that are less than 5 hours" by IATA (IATA Passenger Survey p.4). Within the industry, however, short haul flights typically range less than 3 hours. Adopting different strategies to the traditional "legacy" or "flag carriers", LCCs have taken to take advantage of cost advantages on short haul flights, using short turnaround times, high utilization of crew and assets, service to lower cost airports and limited in-flight services and entertainment, higher density cabin, lower yield and higher volume and generating additional revenue from services traditionally offered by other airlines within the ticket price. Through these strategies, LCCs have contributed to the growth of the airline market significantly and have become an important method of transportation, accounting for as much as 50% in the South East Asian market and more than 30% and 35% in the North American and European markets respectively (Commercial Market Outlook 2017, p.15).

## 1.2 Literature Review

It is clear that airlines will therefore need appropriate fleet replacement and acquisition strategies to be able to meet the increasing demand while competing in a low profit margin industry with a changing competition environment due to the liberalization of the industry.

Unfortunately, there are very few articles on the subject of fleet planning, aircraft procuring and aircraft phase-outing. There are several reasons but two of the most important ones are these decisions are based on strategic plans and decisions, and they require very confidential data and analysis. Two of the directly related works will be reviewed first. Bazargan and Hartman, 2012 developed an integer program to minimize total discounted purchasing, leasing, operating and maintenance costs, and presented results for the application of two US airlines with generally leasing options. They conclude that these solutions yield benefits from having newer aircraft with less diversity. These are true for low cost airlines, and in reality, big network carriers usually buy their aircraft from manufacturers such as Boeing, Airbus, Embraer and Bombardier, and they tend to diversify their fleet to service different segments of the passengers. Furthermore, big low cost carriers also tend to order from manufacturer directly. One reason for such result may be the budget constraints in the model combines and limits total short haul and long haul aircraft to be added to the fleet for a particular period. In practice, a

certain percentage of aircraft price is paid in installments until the aircraft is produced and delivered to the airline. At this point, a leasing company or financier purchases the aircraft on behalf of the airline and lease back to it. The airline is reimbursed the pre-paid installments from the manufacturer. The leasing term and the leasing rate is determined during the tender process. In the model, there are no leased aircraft at the beginning of the planning period, where in reality, airlines will have leased aircraft with different termination periods at all times if it is an airline currently in operation.

Bazargan and Hartman, 2012 also ignore several key aspects practiced in reality. Airlines almost always buy new aircraft from the manufacturer; where the model allows for the purchase of used aircraft, and hence, it unnecessarily introduces variables that will not take any value. In practice, aircraft are leased from lessors at various ages and rarely, airlines sub-lease their aircraft to other airlines. This model assumes that all the lessors ask for the same lease rent for the aircraft of same type and age. In reality, lease rates depend on financial and market position of lessors and need of the airlines. For example, a big lessor could ask for a higher lease price compared to a smaller lessor. Finally, the model assumes that, at the same age, for the same type of aircraft, maintenance costs are the same. However, for leased aircraft, life limited parts (LLP) on the engines and landing gears, Airworthiness Directive (AD) requirements, component usage cycles, and so on will differ causing different maintenance intervals and costs. Additionally, some lessors require reserves monthly to guarantee that at the time of the maintenance, the lessor will have sum of money to pay the cost of the maintenance. Others opt what is called “end of lease compensation” in which the airline fixes and maintains the components and engines as required. For the LLP parts, whatever is not compensated by the maintenance program is paid back to the lessor through the formulas agreed at the beginning of the lease period.

Additionally, airlines may wet lease aircraft from other operators. In other words, for period when the airline has excess demand, they may opt to lease one or more aircraft from another operator for a 6 months or a year period on the ACMI (Aircraft, Crew, Maintenance and Insurance) basis. The owner of the aircraft (operator in this case) will bear the cost of lease rate, insurance, cockpit and cabin crew of the aircraft, and all the maintenance cost and in return it will charge the airline a rate based on the operating hours. For example, for a guaranteed block hour of 300 hours per month, the lessor will ask the airline to pay 3000 USD per hour for the ACMI costs. If the airline uses 325 hours for a particular month, the operator will get  $325 \times 3000 = 975.000$  USD and if the airline uses the aircraft for example 215 hours then it will pay the minimum guaranteed sum of  $300 \times 3000 = 900.000$  USD. Beside this cost, the airline will pay all the remaining operating costs such as fuel, handling, catering, navigation, etc. This way of adding capacity to the fleet allows the airline to absorb fluctuating demand for short periods.

Hsu, Li, Liu and Chao, 2011 developed a dynamic programming model employing Markov-chain and applied it over a case study in EVA airlines. The model may work for small - medium airlines that need to adjust their fleet against severe demand fluctuations in short periods. Additionally, larger network carriers may find it useful for the operational lease aircraft. Near the end lease periods, Airlines may opt to extend these leases. Here, effective models to capture the randomness of the demand can help to optimize the tradeoff between decreasing lease rate versus increasing airframe and engine maintenance costs. Besides these cases, ordering new aircraft in big number or disposing older types from fleet are airlines strategic decisions and usually based on the market position that the airline is aiming for.

A good example for such a market strategy is Turkish Airlines, which has showed a remarkable growth trend with double digits for the last 13 years. Dursun, 2011, and Alcacer and Çekin, 2015, have examined the market position, advantages and strategies that brought Turkish Airlines from a local airline with 60 aircraft to a global brand with 330 aircraft today. A wide body aircraft fleet consisting of Airbus A330s and Boeing 777-300ERs makes up around 25-30% of the total fleet and a narrow body aircraft fleet that is evenly distributed between the Airbus A320 and Boeing 737 NGs comprises the rest. To maintain the cost efficiency in the ownership costs, Turkish Airlines has procured more than 300 aircraft from Airbus and Boeing for the last 6-7 years.

A good example for such a market strategy is Turkish Airlines, which has showed a remarkable growth trend with double digits for the last 13 years. Dursun, 2011, and Alcacer and Çekin, 2015, have

examined the market position, advantages and strategies that brought Turkish Airlines from a local airline with 60 aircraft to a global brand with 330 aircraft today. A wide body aircraft fleet consisting of Airbus A330s and Boeing 777-300ERs makes up around 25-30% of the total fleet and a narrow body aircraft fleet that is evenly distributed between the Airbus A320 and Boeing 737 NGs comprises the rest. To maintain the cost efficiency in the ownership costs, Turkish Airlines has procured more than 300 aircraft from Airbus and Boeing for the last 6-7 years.

Ansariipoor, Fernando and Liret, 2014 developed a stochastic mixed integer linear programming model for vehicle fleet management problem with the uncertainties on the carbon prices, fuel prices, mileage driven, and fuel consumption. Replacement decisions are based on minimizing expected cost and risk simultaneously.

Flag carriers utilizing aircraft with different capacities, belonging to multiple families frequently face the problem of effectively matching supply and demand under uncertainty for short periods of time. Bish, Suwandechochai and Bish, 2004 propose a Demand Driven Swapping (DDS) approach that takes advantage of the flexibilities in the system and dynamically swaps aircraft as departures near and more accurate demand information is obtained. They analyze the effectiveness of different DDS strategies by testing them using data obtained from United Airlines.

Lessors also face the same problem when redesigning their portfolio, adding more assets from manufacturers, from other lessors (novation), airlines (refinancing) or displacing some assets to other lessors or to part-out companies. Forsberg, 2012 from Avalon leasing company shed light to decision makers in the Aviation industry where 8000 aircraft were expected to be retired. This study must be renewed for the current aging fleet types, such as A340 family, B777 family as well as A320 and B737 classics and NG.

Gibson and Morrell, 2004 discuss the pitfalls of using discount factor or cost of financing for aircraft economic evaluation and decision of lease versus purchase. They propose extension of adjusted present value and show that equity NPV demonstrates the overall returns of the project from a shareholder perspective.

Papapostolou, Pouliasis and Kyriakou, 2017 examine and provide evidence on herd behavior in the shipping industry shipping for dry bulk market. Obviously, knowing that herding exists in the capacity expansion or retirement decision may assist in shaping shipping strategies. A future study is needed to identify whether there is a similar practice in the aircraft leasing industry or in the slow introduction of Russian, Chinese and Japanese narrow body aircraft.

Wei and Hansen, 2007 develop game-theoretic competition models to determine both aircraft size and service frequency to maximize profit. They use empirically derived cost function and market share model, which are calibrated through airlines' actual cost and market data.

Some of the major airlines responded to the penetration of low-cost carriers (LCC) into the market by establishing "low-cost, no frills" divisions (airlines-within-airlines) or sub-models under the same AOC to seek a competitive advantage against LCCs. Lin, 2012 studies these strategies and tries to determine when to retain hub-spoke network or shift to a mixed point-to-point network. Obviously these findings are important to determine what portion of the current fleet can be allocated to new LCC division.

Listes and Dekker, 2005 consider the stochastic nature of passenger demands while applying a dynamic allocation of the fleet's capacity to the flight schedule. They show that scenario aggregation-based approach can detect situations where it is more profitable to expand the fleet as well as cases where the fleet, based on deterministic estimates, should actually be replaced by larger planes.

Yao, Ergun, Johnson, Schultz and Singleton, 2008 discuss strategic planning issues, such as, aircraft maintenance, crew swapping, demand increase and differentiation in the fractional jet ownership models. Although, there are no fractional ownership practice in the commercial airline business, wet leasing or sub leasing practices may be re-studied under the joint ownership.

## 2. Method

Using the integer linear modeling approach adopted by Bazargan and Hartman, 2012, we designed a new model to address the issues that over simplified or complicated the problem.

Our approach will be to take the case of the Low Cost Carrier, as in the approach by Bazargan and Hartman, 2012, and therefore keep some of the simplifications they made (such as the ignorance of wetlease option), operating a single type of narrow body aircraft. This is typical of Low Cost Carrier operations as part of their business model to reduce costs through fleet standardization (mostly maintenance costs but also affects parts supply and purchase costs).

For data collection and case study, we use a low cost carrier based in Istanbul, Turkey to design and validate our model.

### 2.1 Model Development

In the case of the LCC in question, only one type of aircraft was used in the fleet. This is in accordance with what we were expecting as is typical in this business segment.

The model is to consider two options for delivery: buy (purchase) or lease (operational). We know that the cost function will be comprised of the either the purchase (PC) cost or the lease cost (LC) and the operational ( $OC_a$ ) costs for operating the aircraft. For the purposes of this model, we take OC as a total, including the fuel, crew and maintenance costs of operating the aircraft for 1 year. This data is easily accessible from the LCC's operational data.

If the aircraft is sold/parted out, there will be a positive cash flow into the model and thus will be taken out of the cost function. Furthermore, at the end of the planning horizon (T), at time T2, any remaining lease periods will continue on to the next planning horizon and can be taken out of the current model as a positive cash flow (since the airline will not be making lease payments for the remaining lease beyond time T).

### 2.2 Assumptions

Aircraft considered for purchase is only new aircraft. Although some operators buy second-hand aircraft, this is region specific and also usually not preferred by LCCs. The purchase cost (PC) is taken as the most recent price offers from the manufacturer of the selected aircraft type by the LCC.

Aircraft considered for lease are taken as being at a quarter of their typical operational age of 24 years (Jiang, 2013), i.e. 6 years of age. The typical age is taken as the maximum age of aircraft allowed in the fleet (A) as well.

Operational lease periods (LP) is taken as 6 years as the age of aircraft considered for lease ( $L_a$ ) is 6 year old aircraft; typically lease periods for new aircraft are 8 or 12 years, and lease periods for other aircraft are shorter ("Best industry lease practice for aircraft lease transitions", Issue 110). The lease cost ( $LC_a$ ) is a function of aircraft age and is available through analyzing past data of the lease offerings to the LCC.

As the LCC is currently in operation, there will be aircraft currently in their fleet and also aircraft incoming from previous commitments and lease agreements made. The time these will leave the fleet are represented by  $IO_{t2}$ .

Demand ( $D_t$ ) is forecasted over the planning horizon by the LCC's network planning and scheduling department's activities and is assumed to be an accurate forecast (as when compared to the industry estimates of the manufacturers as well as air transport associations).

Salvage ( $NS_{at}$ ) is considered only after half of the serviceable life of the aircraft has been accomplished ( $mS=12$ ).

The salvage/sale ( $SV_a$ ) cost is provided by the LCC and is available through past data on aircraft sales accomplished.

### 2.3 Decision Variables

The most obvious decision variable is the number of aircraft to be purchased, leased and salvaged (with age a) at time t, which are denoted as  $NP_t$ ,  $NL_t$ , and  $NS_{at}$  respectively. There are also two indirect decision variables; the number of aircraft of age a purchased and leased at time t,  $P_{at}$  and  $L_{at}$  respectively.

## 2.4 The Mathematical Model

Using the above, we have come up with the below model to represent our fleet management problem.

1. Purchased aircraft comes 1 year after order;
2. No purchased aircraft enters at the beginning of the horizon;
3. Owned aircraft this year is made of purchased last year minus the number sold this year;
4. Leased aircraft this year at age  $a$  is sum of leased A/C in previous years until age  $a$ ;
5. All aircraft in fleet (purchased, leased or what is on hand) must meet the demand;
6. No sale of aircraft in the initial year;
7. No sale of aircraft until minimum salvage age  $mS$ ;

$$\begin{aligned}
 & \min \sum_{t \in 1..T} \left( PC \cdot NP_t + \sum_{a \in A} OC_a \cdot (P_{at} + L_{at}) + LP \cdot LC_a \cdot NL_t - SV_a \cdot NS_{at} - \max(0, t + LP - T2) LP \cdot NL_t \right) \\
 & \text{s.t.} \\
 & P_{a1} = 0 \quad \forall a \in 2..A \\
 & P_{1t} = NP_t \quad \forall t \in 1..T \\
 & P_{at} - P_{a-1t-1} + NS_{at} = 0 \quad \forall a \in 2..A, t \in 2..T2 \\
 & L_{at} - \sum_{t2 \in 1..T: t-LP \leq t2 < t, a=L_a + \max(0, t-t2)} NL_{t2} = 0 \quad \forall t \in 1..T, a \in 1..A \\
 & \sum_{a \in A} P_{at} + L_{at} + \sum_{t2 \in 1..T: t2 \leq t} IO_{t2} \geq D_t \quad \forall t \in 1..T \\
 & NS_{at} = 0 \quad \forall a \in 1..mS, t \in T \\
 & NS_{a1} = 0 \quad \forall a \in 1..A \\
 & NS_{1T2} \leq P_{a-1t-1} \quad \forall a \in 2..A, t \in 2..T \\
 & P_{aT2} = 0 \quad \forall a \in 1..A \\
 & P, L, NP, NL, NS \in Z^+
 \end{aligned}$$

## 3. Results

CPLEX Studio IDE 12.7.1 optimization software was used to program the model. Running the model yielded an optimum result with a cost of \$20,442,499,000 over the 24 year planning horizon. The model required the acquisition (purchase) of 65 aircraft and lease of 131 aircraft. Table 1 below displays the number of Aircraft purchased and the purchase period. Similarly, Table 2 displays the number of Aircraft leased and the lease period. Meanwhile Table 3 shows the number of aircraft purchased and leased throughout the planning horizon.

**Table 1. Aircraft purchased and the time of purchase**

T	NP	T	NP
1	25	9	3
2	3	10	5
3	3	11	10
5	2	13	5
7	4	14	5

**Table 2. Aircraft leased and time of lease**

T	NL	T	NL
2	1	19	10
14	5	20	35
15	5	21	13
16	5	22	17
17	5	23	30
18	5		

**Table 3. Aircraft Purchased and Leased over the planning horizon**

T	NP	NL	T	NP	NL
1	25	0	13	5	0
2	3	1	14	5	5
3	3	0	15	0	5
4	0	0	16	0	5
5	2	0	17	0	5
6	0	0	18	0	5
7	4	0	19	0	10
8	0	0	20	0	35
9	3	0	21	0	13
10	5	0	22	0	17
11	10	0	23	0	30
12	0	0	24	0	0

Table 4 below shows the age of salvaged aircraft and the period of the planning horizon they were salvaged in. The aircraft sold are highlighted for ease of view.

#### 4. Discussion

It is obvious that the model favors buying over leasing at the beginning of the horizon whereas the opposite is true midway towards the end of the horizon. However, the appearance of a single aircraft being leased in the second period is interesting. It can be inferred that the model attempts to employ purchased aircraft to meet a certain portion of long term demand, and lease options to meet the remaining demand outstanding that occurs particularly towards the end of the horizon due to the projected growth in the market.

The model reacts well to the salvage function, and actually makes use of purchased aircraft as much as possible. The only aircraft that are close to mS are those sold due to the end of the planning horizon (T=24 and 25). This indicates that the purchasing and lease cost of other aircraft outweighed the cost of operating these aircrafts throughout their usable life.

**Table 4. Occurrence over the planning horizon**

		Period T				
		21	22	23	24	25
Age a	1	0	0	0	0	0
	2	0	0	0	0	0
	3	0	0	0	0	0
	4	0	0	0	0	0
	5	0	0	0	0	0
	6	0	0	0	0	0
	7	0	0	0	0	0
	8	0	0	0	0	0
	9	0	0	0	0	0
	10	0	0	0	0	0
	11	0	0	0	0	0
	12	0	0	0	0	5
	13	0	0	0	0	5
	14	0	0	0	10	0



15	0	0	0	5	0
16	0	0	0	3	0
17	0	0	4	0	0
18	0	0	0	0	0
19	0	0	0	0	0
20	0	0	0	2	0
21	25	3	3	0	0
22	0	0	0	0	0
23	0	0	0	0	0
24	0	0	0	0	0

Furthermore, the large number of leases, especially towards the end of the planning horizon, are most likely the result of allowing the remaining lease payments to be deducted at the end of the lease period from the cost of lease. However, the lease is not being terminated and as the operation of the LCC will continue beyond the planning horizon, coupled with the fact that demand for air travel is expected to healthily and steadily grow in the region that the LCC is currently operating in, this situation is not really an issue.

In fact, it would be interesting to see how the model reacts to having so many leased aircraft at the beginning of the next planning horizon. A dynamic modeling approach may be used to use the results of the initial planning horizon as the inputs (initialization conditions) of the next.

Furthermore, operational leases are not the only type of lease available in the market. Of particular note is the "wet lease", where an aircraft is available with its crew ready to fly, typically for shorter lease durations (3-4 years). The disadvantage of this type of lease particularly for LCC operations is that the cabin is typically not in the LCC standard (high density cabin) and thus, lowers the volume of passengers per flight and the short lease duration does not allow for cost effective modification of the cabin. However, if and when the model is applied for a traditional operator, the wet lease option can easily be incorporated into the model.

Although it is typical for many LCCs to use a single fleet type for cost reduction purposes, using different aircraft for different flights as applicable strengthens the bargaining power of airlines. Therefore, traditional airlines typically have a mix of fleet types. This is also due to the fact that traditional airlines fly long-haul flights as well as short-haul flights, so a single fleet type alone does not meet the demand or cost-minimization requirements. Hence, when considering traditional carriers, additional fleet types will need to be considered.

## 5. Further Research Directions

This model ignores the flexibility in terms of lease options. In practical application, any number of lease periods are possible as this depends on a number of factors such as the period of lease demanded by the airline, the lease period offered by the lessor, the demand in the market (both current and projected) for leased aircraft, conditions of the lease, etc. However, the most commonly seen periods, besides that taken in the model, are 8 and 12 years ("Best industry lease practice for aircraft lease transitions", Issue 110).

Since the case study was performed with a LCC and the model designed for the specific needs and situation of the LCC, certain restrictions were placed on the lease options. Lease age was one of these restrictions in our model; a 6 year old aircraft is not difficult to find in the lease market and is at a good trade-off point for operational cost vs lease cost. Furthermore, with a lease period of 6 years, the redelivery occurs at the 12 year maintenance check, allowing the heaviest maintenance check to coincide with the redelivery check (which is typically requested by the lessors). However, though it is quite possible to find a 6 year old A/C in the market, an 8 and 12 year old A/C is as, if not more, common due to the fact that these aircraft may be coming out of a lease from an operator that leased the A/C when brand new. The model should therefore be expanded to allow for 8 and 12 year old aircraft to be leased; this will also allow the model to be more flexible so that it can be applied in the case of a regular

operator. Therefore, more data needs to be collected on past availability of different lease options and the current market prices for such options today (as well as current availability).

Some of the other shortcomings we saw in the model by Bazargan and Hartman, 2012 can also be addressed in the future work, such as variable lease and operational costs. Of particular note is the maintenance costs, which vary based on the time and application of task cards. Certain maintenance events are scheduled early, which impacts the maintenance program of the aircraft at later stages of its life, for example.

## 6. Conclusions

We have analyzed the current market situation as reported by various industry leaders and layers. It is clear that the airline industry is expected to grow steadily worldwide, with emerging markets expected to play an important role in driving the industry for the next 20 years.

Meanwhile, there is sadly a dearth in academic literature regarding the management of aircraft fleet of airlines. We have analyzed what is available in literature to the best of our ability and examined an integer linear model that is suitable for application in our case study.

We analyzed and noted the weaknesses of the model in literature. We then developed our own model that made certain improvements to the model in literature but did not answer all of the weaknesses noted. Running this model in our case study showed that our model uses both purchasing and leasing to answer an increasing demand. We then proposed a plan of action for future research that covers the shortcomings of our model.

## 7. References

- Airbus, Airbus Global Market Forecast 2017-2037, retrieved from: [http://www.airbus.com/content/dam/corporate-topics/publications/backgrounders/Airbus\\_Global\\_Market\\_Forecast\\_2017-2036\\_Growing\\_Horizons\\_full\\_book.pdf](http://www.airbus.com/content/dam/corporate-topics/publications/backgrounders/Airbus_Global_Market_Forecast_2017-2036_Growing_Horizons_full_book.pdf)
- Aircraft Commerce, Best industry lease practice for aircraft lease transitions Issue No 110 February/March 2017, retrieved from: <http://www.iba.aero/wp-content/uploads/2017/03/Aircraft-Commerce-best-industry-practice-for-aircraft-lease-transitions.pdf>
- Alcacer, J. & Çekin, E. (2015). Turkish Airlines: Widen Your World. *Harvard Business School*, 9-716-408. <https://www.hbs.edu/faculty/Pages/item.aspx?num=49517>
- Ansariipoor, A. H., Fernando, S. & Liret, A. (2014). A risk management system for sustainable fleet replacement. *European Journal of Operational Research*, 237, 701-712. doi:10.1016/j.ejor.2014.02.006
- Bazargan, M. & Hartman, J. (2012). Aircraft replacement strategy: Model and analysis. *Journal of Air Transport Management*, 25, 26-29. doi:10.1016/j.jairtraman.2012.05.001
- Bhaskara, V (2016, January 26) ANALYSIS: A320neo vs. 737 MAX: Airbus is leading (Slightly) – Part I. Airways News. Retrieved from <http://www.think-dash.com>
- Bish, E. K., Suwandechochai, R. & Bish, D. R. (2004). Strategies for Managing the Flexible Capacity in the Airline Industry. *Naval Research Logistics* 51, 654-685. doi: 10.1002/nav.20019
- Boeing, Current Market Outlook 2012. Retrieved from: [http://libraryonline.erau.edu/online-full-text/books-online/Boeing\\_Current\\_Market\\_Outlook\\_2012.pdf](http://libraryonline.erau.edu/online-full-text/books-online/Boeing_Current_Market_Outlook_2012.pdf)
- Boeing, Commercial Market Outlook 2017. Retrieved from: <http://www.boeing.com/resources/boeingdotcom/commercial/market/current-market-outlook-2017/assets/downloads/2017-cmo-6-19.pdf>
- Dursun, M. E. (2011). *The rise and competitive advantages of Turkish Airlines*. (Unpublished master thesis). Cranfield University, England.
- Forsberg, D. (2012). *Aircraft Retirement Trends & Outlook*. Retrieved from [http://avolon.aero/wp/wp-content/uploads/2012/09/Avolon\\_Zep\\_1\\_2012\\_AircraftRetirementTrends.pdf](http://avolon.aero/wp/wp-content/uploads/2012/09/Avolon_Zep_1_2012_AircraftRetirementTrends.pdf)
- Gibson, W. & Morrell, P. (2004). Theory and practice in aircraft financial evaluation. *Journal of Air Transport Management* 10, 427-433. doi:10.1016/j.jairtraman.2004.07.002

- Hsu, C. I., Li, H. C., Liu, S. C. & Chao, C. C. (2011). Aircraft replacement scheduling- A dynamic programming approach. *Transportation Research Part E* 47, 41-61. doi:10.1016/j.tre.2010.07.006
- IATA (2016, December 8) Another Strong Year for Airline Profits in 2017. Retrieved from: <http://www.iata.org/pressroom/pr/Pages/2016-12-08-01.aspx>
- IATA (2017, December) Fact Sheet- Fuel. [Fact Sheet] Retrieved from: [http://www.iata.org/pressroom/facts\\_figures/Pages/index.aspx](http://www.iata.org/pressroom/facts_figures/Pages/index.aspx)
- Jiang, H. (2013, March) Key Findings on Airplane Economic Life. [White paper] Retrieved from: [http://www.boeing.com/assets/pdf/commercial/aircraft\\_economic\\_life\\_whitepaper.pdf](http://www.boeing.com/assets/pdf/commercial/aircraft_economic_life_whitepaper.pdf)
- Lin, M. H. (2012). Airlines-within-airlines strategies and existence of low-cost carriers. *Transportation Research Part E* 48, 637-651. doi:10.1016/j.tre.2011.11.004
- Listes, O. & Dekker, R. (2005). A scenario aggregation based approach for determining a robust airline fleet composition. *TRANSPORTATION SCIENCE* 39(3), 367-382. doi:10.1287/trsc.1040.0097
- Papapostolou, N. C., Pouliasis, P. K. & Kyriakou, I. (2017). Herd behavior in the drybulk market: an empirical analysis of the decision to invest in new and retire existing fleet capacity. *Transportation Research Part E* 104, 36-51. doi:10.1016/j.tre.2017.05.007
- Wei, W. & Hansen, M. (2007). Airlines Competition in Aircraft Size and Service Frequency in Duopoly Markets. *Transportation Research Part E* 43, 409-424. doi:10.1016/j.tre. 2006.01.002
- Yao, Y., Ergun, Ö., Johnson, E., Schultz, W. & Singleton, J. M. (2008). Strategic planning in fractional aircraft ownership programs. *European Journal of Operational Research* 189, 526-539. doi:10.1016/j.ejor.2007.05.034

# **Tourism Higher Education Experiences of a Leading Country: The Case of Turkey**

Rahman Temizkan, Duran Cankul, Gizem S. Sarikaya

## **1. Introduction**

The tourism sector has grown rapidly all over the world. Turkey, the number of international tourist arrivals and tourism revenues in the ranking is a country that has managed to be among the first 10 countries in the world. Especially after 1980, has grown rapidly with the promotion law, as soon as possible to serve the millions of tourists was built with a capacity of many tourism businesses. This capacity expansion has created a need for qualified labor. To meet this demand, the number of tourism education institutions has also increased rapidly. However, a significant part of the workforce with a qualified diploma has not entered the sector and has left the sector. The sector continues to whine about the lack of qualified personnel and the lack of human resources. The reason for this situation is that there are no legal regulations based on diplomas related to tourism professions, and that tourism businesses are covered by short courses or those who have never been educated in tourism. Therefore, it can be said that the investments made for tourism education, the educated and employed academicians and the labor given can not produce the anticipated compensation. Tourism graduates who do not enter the sector can find jobs in a wide variety of sectors based on the training they receive. However, it is necessary to ensure that the tourism sector in which tourism diplomas are employed because of the strategic importance and where the state's resources are planned to go. This also Turkey's research at the undergraduate level decision makers to evaluate the experience it has gained in tourism education policies to be followed in this regard aims to shed light on the development. Turkey's policy makers begins to give importance to the tourism sector in recent years to know the results of this experience will enable them to make more informed decisions are important research.

## **2. Tourism and Human Resources**

Tourism sector has been growing and developing as a social and economic activity in the last century (Sharpley, 2009). Rapid development in the mobility of people, both locally and internationally, makes tourism a large and diverse sector (Goeldner, Ritchie & McIntosh, 2000). The tourism sector has become an important sector of economic activity in many developing and developed countries of the world (Baum & Szivas, 2007) and is one of the world's largest and fastest growing areas with globalization (Veijola, 2010). The tourism sector is not just about restaurants and hotels, as most people think. Transportation services are made up of many organizations and organizations under the heading of businesses and accommodation operations in destinations (Career View, 2006; Hayes & Ninemeier, 2009). Hence, the tourism sector is a global business (Lipman, 1997) that grows faster than other industries (Winberg, 1997) as the greatest economic power that moves the relevant indicators in local and national economies (Tesone, 2004; Baum & Szivas, 2002; Mayaka, 2011) and is in a constant trend of growth and development. Along with this growth and development, the tourism sector also provides employment opportunities for millions of people, officially and unofficially as a key to the global economy (Odabaşı, 2002; Lohmann & Jafari, 1996; Lipman, 1997; Gee, 1997; Winberg, 2002; Solà, 2002; Sharpley & Telfer, 2002; Wall & Mathieson, 2006; Baum & Szivas, 2007; Ross & Pryce, 2010; Mihalič, 2011; Pizam & Shani, 2011; Baum, 2015; Wwtc, 2015).

Tourism is an important sector that offers potential employment opportunities around the world (Winberg, 2002; Mihalič, 2011). However, the works in the tourism sector have changed qualitatively today compared to the past. At this point, the fact that the tourism sector offers employment opportunities in such large quantities, the increase in the quality of the work done, reveals the importance of the human factor that constitutes the employment, in other words, the workforce that delivers the service (Baum, 2015). It is concerned with the interaction in the tourism sector with respect to guest-service-related service encounters (Hartline & Ferrell, 1996). The quality of the guest worker interaction, known as service conflicts, is defined as an important means of ensuring strategic

competitive advantage (Kelley, 1992, Mattila & Enz, 2002; Solnet, 2007). Tourism laboring and guest working relationships require face-to-face communication (Haven-Tang & Jones, 2008; Hayes & Ninemeier, 2009). The quality of the services provided in tourism is directly related to the people and the people are the people (Ross & Pryce, 2010; Erbaş, Cankül & Temizkan, 2013). Human resources in the tourism sector are crucial for the successful delivery of tourism services and for the successful execution of business (Baum, 2007; Baum & Szivas, 2007; Ross & Pryce, 2010) and all stakeholders in this regard are unanimous (Lohmann & Jafari, 1996).

Tourism sector is different from other manufacturing sectors. Make the product come out at the beginning of everything. The effect of employee-client relationships can not be defined or measured in material terms. In the first encounter, the employee's have greeted performance very big prefix. Here the employee's ability to continue dialogue and process continues to stand out. Moreover, it should not be forgotten that the products and services presented in the tourism sector are produced and consumed at the same point. Finally, the shelf life of the products offered is limited, which means they can disappear immediately. It is possible to re-present a meal served. But if you do not say "welcome" for the first time, it will not be possible to compensate. Because of these reasons, tourism is separated from other sectors. The more abstract the products offered by an institution are, the more vital the knowledge and skills of service providers are (Ross & Pryce, 2010). Hence, competing and succeeding in the tourism sector, regardless of where the world is, depends on the quality of the human resource employed (Kelley, 1992; MacVicar & Rodger, 1996; Lohman & Jafari, 1996; Jafari & Solà, 1996; Jenkins, 1997; Singh, 1997; Leslie & Richardson, 2000; Mattila & Enz, 2002; Gee, 2002; Hawkins, 2002; Mayoka & King, 2002; Conlin & Baum, 2003; Baum, 2007; Baum & Szivas, 2007; Solnet, 2007; Singh, Hu & Roehl, 2007; Haven-Tang & Jones, 2008; Ross & Pryce, 2010; Erbaş et al., 2013; Temizkan, Erbaş & Cankül, 2014; Erbaş, Temizkan & Cankül, 2015; Baum, 2015; Temizkan, 2015; Erbaş, Temizkan & Cankül, 2016; Erbaş, Cankül & Temizkan 2016; Cankül, 2017). In this respect, the way to live a good experience at a high quality and efficient service and a holiday depends on qualified human power. The way to obtain qualified work force is only possible with tourism education. (Jafari & Solà, 1996; Mayaka & King, 2002).

### 3. Tourism Training and Turkey

The growing and multifaceted nature of the tourism industry, the increasingly prominent nature of its professionalism and staff, has led to the emergence of a need for training as a pressure element. This pressure has manifested itself in all levels from the lowest level to the highest level (Ritchie, 2000). The labor force requirements in tourism are rapidly changing. Qualified personnel are needed to provide quality products and services (Jafari & Solà, 1996). Therefore, a wider education and training programs have been established to achieve these challenges (Ritchie, 2000), and tourism education and training is also rapidly being promoted, as the increasing importance of tourism as one of the world's most important economic, social and environmental forces has begun to spread and become compulsory (Cooper, Shepherd & Westlake, 1996; Mayaka & King, 2002; Hudson, 2011).

Tourism education continued to grow rapidly around the world in the mid-twentieth century, especially in terms of educational institutions etmiştir (Cooper, 2002; Mihalič, 2011). Along with the increased interest in tourism education by both the public and private sectors, the number of institutions providing tourism education at all levels, from secondary education to graduate level, has increased (Mayaka & Akama, 2007). The output of this change has also manifested itself with extraordinary growth (Airey, 2004). This growth has been accelerated not only by the demands of students and the sector, but also by the support provided by the public (Cooper, 2002).

It can be said that the rapid developments in the tourism sector are very effective in the development of the tourism education process. It is observed that developments in the world of tourism education in Turkey that go parallel with the development process of tourism and development of tourism education in Turkey is similar to the history of world tourism training. first tourism education began in 1953 with the opening of tourism vocational courses with the cooperation of national education, youth and sports ministry of culture and tourism ministry in Turkey (Timur, 1992; Demirkol & Çetin, 2014). Tourism education for the first time at the higher education level In the 1965-1966

education and training year in Ankara, the tourism and tourism high school in Turkey (Ünlüönen & Boylu, 2009), the pre-graduate level tourism education in the 1970s, (Doğan, 1992; Özdoğan & Çavuş, 2009; Boylu & Arslan, 2013) and finally, the tourism education at the graduate level started at the tourism institute established in 1964 in Izmir (Ünlüönen & Boylu, 2005). The incentives given in the aftermath of the 1980s and the start of activities in the country of foreign investments have been accompanied by the rapid development in the end tourism sector (Kocaoğlu, 1992; Tuna, 2002; Küçükaltan, 2002). After the 1980s, the increase in the number of tourism enterprises increased the demand for qualified human power (Gürdal, 2002) the incentives seem to have increased in tourism training institutions (Kozak, 1992) and education has accelerated at all levels (Gündüzalp, 1992). It has gradually developed over a period of 30 years (Demirkol and Çetin, 2014).

As of 2018, tourism education at all levels are given Turkey and since the sector continues to grow, a large number of schools offering tourism education are being opened for the training of qualified human resources to be employed in tourism businesses. The number of students and graduates is constantly increasing.

**Table 1. Students and Graduates in Tourism Education Institutions at Undergraduate Level by Years**

Year	Number of undergraduate students	Number of undergraduate graduates
2012-2013	39.555	4.760
2013-2014	51.260	5.860
2014-2015	61.867	8.236
2015-2016	78.477	9.581
2016-2017	82.884	10.742
2017-2018	84.004	-

According to Table 1, in the 2012-2013 education year, the number of undergraduate students in the field of tourism is 4.760 and the number of graduates is 39.555. When the number of undergraduate students studying in the field of tourism in the 2016-2017 education year is examined, the number of graduates is 82,884 and it is 10.742. As a result, there is a serious increase in the number of students and graduates in tourism education at the undergraduate level. However, research conducted in Turkey that persons without tourism education of the vast majority of employees in the tourism sector (Kozak, 1992; Agaoglu, 1992; Kizilirmak, 2000; Yeşiltaş, Öztürk & Hemmington, 2010; Yanardağ & Avcı, 2012), work in the sector of the graduates have received tourism education (Hacıoğlu, 1985, Pavesic & Brymer 1990, Aydos, 1992, Kuslivan & Kuslivan, 2000, Birdir, 2002; Üngüren & Ehtiyar, 2009).

#### 4. Method

In this study; Measurement Selection and Placement Center (ÖSYM) 2017 prepared by the University Entrance Exam and higher education programs and quotas placement results manuals examining, student quotas in the tourism education at the undergraduate level in Turkey and aimed to assess the occupancy rate of these quotas numerically. In the study, content analysis method was used from qualitative research methods. Content analysis method with graduate-level universities in providing education about tourism in Turkey, examined quotas and placement results of faculties and colleges, places the chapter placement results, was transformed into an additional placement results and listed the remaining quota information and statements.

#### 5. Findings

In this part of the study, the quotas of the departments in tourism higher education and the findings about placement results were included. Details are given below.

**Tablo 2. Quota and Placement Results of Tourism Management Departments**

Depart ment	Gene ral Quota	Gene ral Compacti ng	Gene ral Empty	Additio nal Placement Quota	Additio nal Placement	Additio nal Empty
Tourism Management	2143	1367	776	941	62	879
Tourism Management (English)	347	270	77	98	8	90
Tourism Management( EE)	1227	261	966	982	17	965
Tourism and Hotel Management	255	167	92	95	11	84
Tourism and Hotel Management (EE)	140	42	98	107	4	103
Tourism and Hotel Management (English)	329	105	224	162	5	157
Tourism Management and Hotel Management	666	515	159	254	33	221
Tourism Management and Hotel Management (EE)	340	148	196	227	9	218
Hotel Management (English)	34	23	11	0	0	0
<b>General Total</b>	<b>5481</b>	<b>2898</b>	<b>2583</b>	<b>2866</b>	<b>149</b>	<b>2717</b>

Looking at Table 2, it is seen that 8347 quotas were provided for the programs under the departments of tourism management, including general and additional for the year 2017. The settlement rate for these quotas is 36,5%. The remaining quota rate is 63,5%. The quotas of more than half of the departments related to tourism management are empty and not preferred.

**Table 3. Quota and Placement Results of the Departments of Hospitality Management**

Department	General Quota	General Compacting	General Empty	Additional placement quota	Additional placement	Additional empty
Accommodation Management	733	566	176	262	60	202
Accommodation Management (Open Ed.)	1000	8	992	1020	0	1020
Accommodation Management (EE)	470	155	319	344	7	337
Accommodation and Tourism Management (English)	30	9	21	22	0	22
<b>General Total</b>	<b>2233</b>	<b>738</b>	<b>1508</b>	<b>1648</b>	<b>67</b>	<b>1581</b>

The programs under the departments of hospitality management were given 3881 quotas, including general and additional, for the year 2017. The settlement rate for these quotas is 20,7%. The remaining quota is 79,3%. Approximately 80% of departments related to accommodation management are left empty and not preferred by students.

**Table 4. Quota and Placement Results of Travel Management and Tourist Guidance Departments**

Department	General Quota	General Compacting	General Empty	Additional placement quota	Additional placement	Additional empty
Travel Management	180	87	93	107	5	102
Travel Management (EE)	120	3	117	121	0	121
Travel Management and Tourism Guidance	351	185	166	187	6	181
Travel Management and Tourism Guidance (EE)	150	1	149	155	0	155
Tourism Guidance	943	943	0	88	56	32



Tourism Guidance (EE)	210	210	0	16	15	1
Tourism Guidance (English)	30	25	5	8	3	5
<b>General Total</b>	<b>1984</b>	<b>1454</b>	<b>530</b>	<b>682</b>	<b>85</b>	<b>597</b>

According to Table 4, it is seen that 2,666 quotas are provided for the programs under the sections of travel management and tourism guidance, including general and additional for 2017 year. The settlement rate for these quotas is 57,7%. The remaining quota is 42,3%. More than half of the quotas of departments related to travel management and tourism guidance are filled. It can be said that these sections are preferred by students.

**Table 5. Gastronomy and Culinary Arts Departments Quotation and Placement Results**

Depart ment	Gene ral Quota	Gene ral Compacti ng	Gene ral Empty	Additio nal placement quota	Additio nal placement	Additio nal empty
Gastrono my	201	166	35	56	6	50
Gastrono my (English)	40	30	10	18	7	11
Gastrono my and Culinary Arts	1507	1503	4	144	67	77
Gastrono my and Culinary Arts (EE)	440	440	0	28	26	2
Gastrono my and Culinary Arts (English)	330	289	41	82	9	73
<b>General Total</b>	<b>2518</b>	<b>2428</b>	<b>90</b>	<b>328</b>	<b>115</b>	<b>213</b>

The programs under the sections of Gastronomy and Culinary Arts were given 2,846 quotas, including general and supplementary, for the year 2017. The settlement rate for these quotas is 89,3%. The remaining quota is 10,7%. It is observed that about 90% of the sections on gastronomy and culinary arts are filled. It is possible to say that these sections are the most preferred departments by students.

## 6. Conclusions and Recommendations

Based on the information in the literature, it is seen that the most important factor in the development and success of the tourism sector is qualified human resources (Kelley, 1992; Lohman & Jafari, 1996; Jenkins, 1997; Leslie & Richardson, 2000; Mattila & Enz, 2002; Gee, 2002; Hawkins, 2002; Mayoka & King, 2002; Conlin & Baum, 2003; Szivas, Riley & Airey, 2003; Baum, 2007; Solnet, 2007; Singh, Hu & Roehl, 2007; Haven-Tang & Jones, 2008; Ross & Pryce, 2010; Erbaş et al., 2013; Temizkan & Cankul, 2015; Baum, 2015; Temizkan, 2015; Erbaş et al., 2016; Cankul, Erbaş & Temizkan, 2017). The way to obtain qualified human resources is only possible with tourism education (Jafari & Solà, 1996; Mayaka & King, 2002). States have established a large number of educational institutions aimed at educating the skilled labor required by the sector and to carry out tourism education at the secondary and higher

education level. Turkey Republic state tourism training institutions have established their same method tourism diploma which qualified workforce to meet the needs associated with the rapid growth of the industry since the 1980s. However, as the factors such as the training of human resources, the construction of educational institutions and the training of trainers take time, the growth rate of tourism education has not reached the growth rate of the sector. After 2010, when the numbers, capacities, number of students and number of graduates of tourism education institutions are taken into account, it is seen that qualified labor force needs can be met with these educational institutions. Therefore, there is no need for trainings such as short-term courses and certification activities to close the vacancy of qualified labor force that the industry has in the past. However, a significant part of the qualified workforce with a diploma has not entered the sector and has left the sector. The scientific work has been put forward (Cankül, 2016). As a result of this situation, the results of this research support this situation. Research results have shown that the needs of the tourism sector in Turkey on a much higher capacity is created, quotas were left empty, the demand for higher education shows that tourism also fell.

It is not possible to prevent and improve the problems experienced in the field of tourism that the tourism system is not organized based on the tourism professions, laws and diplomas. In this context, the human resources of the Ministry of Tourism and tourism enterprises should be fully funded from tourism education institutions in order to evaluate the investments made to the institutions providing tourism education effectively and productively. In this way, the problem with the qualification that the labor force in the tourism sector and tourism related public institutions in Turkey will be no definitive solution. Investments made in tourism training institutions will be efficiently and effectively assessed. Diplomates not the only sector in the central and provincial organizations of the tourism ministry officials, experts and provincial cultural tourism director of the industries providing employment in such tasks will be opened in front of the public working in harmony and Turkey will be increased competitiveness of the tourism sector (Temizkan & Cankül, 2015 Cankül, 2016; Cankül et al., 2017).

States that are considering investing in the tourism sector build educational institutions and offer graduates on the one hand. The opening of educational institutions and the granting of graduates are a positive development. However, the main problem is that the graduates can not get into the sector. Therefore, it is proposed that governments should not neglect to make legal arrangements such as occupational laws in order to ensure that graduates with tourism education are able to enter the sector. This will ensure a healthy growth.

## 7. References

- Ağaoğlu, O. K. (1992). Turizm Eğitiminin Batı Avrupa Ülkeleri ile Karşılaştırmalı Konumu ve Türkiye Uygulamasında Yaşanılan Tikanıklıklar, *Turizm Eğitimi Konferans- Workshop*, 9-11 Aralık, Ankara.
- Airey, D. (2004). "From Here to Uncertainty" , Proceedings of the Conference of the Association for Tourism in Higher Education, Missenden Abbey, 1-3 Aralık, Buckinghamshire, UK.
- Aydos, H. (1992). *Türkiye’de Turizm Sektörüne İşgücü Yetiştirilmesi, Buna Yönelik Sorunlar ve Çözüm Önerileri*, Turizm Eğitimi Konferans- Workshop, 9-11 Aralık, Ankara.
- Baum, T. (2007). "Human Resources in Tourism: Still Waiting for Change" , *Tourism Management*, C: 28, ss. 1383-1399.
- Baum, T. (2015). "Human Resources in Tourism: Still Waiting for Change? A 2015 Reprise", *Tourism Management*, C: 50, ss. 204-212.
- Baum, T. & Szivas, E. (2007). "HRD in Tourism: A Role for Government?" , *Tourism Management*, ss. 1-12.
- Birdir, K. (2002). *Turizm ve Otel İşletmeciliği Eğitimi Alan Lisans Öğrencilerinin Turizm Endüstrisinde Çalışmayı Tercih Etmemelerinin Temel Nedenleri: Bir Nominal Grup Tekniği Araştırması*, Turizm Eğitimi Konferans-Workshop, 11-13 Aralık, Ankara.
- Boylu, Y. & Arslan, E. (2013). *Türkiye’deki Turizm Eğitiminde Son Rakamsal Gelişmeler*. 14. Ulusal Turizm Kongresi. 05-08 Aralık, Bildiri Kitabı İçinde (539-556). Kayseri.

- Cankül, D. (2016). *Turizm Diplomalı Nitelikli Personelin Sektöre Kazandırılmasında Ortak Akıl* (Yayınlanmamış Doktora Tezi), Eskişehir Osmangazi Üniversitesi Sosyal Bilimler Enstitüsü, Eskişehir.
- Cankül, D., Erbaş, A. & Temizkan, R. (2017). "Turizm Sektöründe Nitelikli İşgücüne Doğru: Turizm Diplomalıların Sektöre Kazandırılması", *Social Sciences Studies*, Cilt: 3, No: 11, ss. 1815-1833.
- Career View. (2006). *Tourism*, (Çevrimiçi) [http://www.victoria.ac.nz/st\\_services/careers/pdf/career-view/career-view-tourismweb.pdf](http://www.victoria.ac.nz/st_services/careers/pdf/career-view/career-view-tourismweb.pdf). 10 Ocak 2018.
- Conlin, V. M. & Baum, T. (2003). *Comprehensive Human Resource Planning: An Essential Key to Sustainable Tourism in Small Island Settings*, Classic Reviews in Tourism (Ed. Cooper, C.), Channel View Publications.
- Cooper, C., Shepherd, B. & Westlake, J. (1996). *Educating the Educators in Tourism: A Manual of Tourism and Hospitality Education*, 1st Edition, Published by The World Tourism Organization.
- Cooper, C. (2002). "Standard Creation in Tourism Education and Training-GTAT", Human Resources in Tourism: Towards A New Paradigm, 26-27 Ocak, Madrid, Spain.
- Demirkol, Ş. & Çetin, G. (2014). *Turizm Politikaları ve Alternatif Yönetim Yaklaşımları*, Değişim Yayınları, Ankara.
- Doğan, Z. H. (1992). *Turizm İşletmeciliği ve Otelcilik Yüksekokullarının Sorunları (Aydın Örneği)*, Turizm Eğitimi Konferans- Workshop, 9-11 Aralık, Ankara.
- Erbaş, A., Cankül, D. & Temizkan, R. (2013). *Turizm Personeli Meslek Yasası Girişimi: Tiyader Örneği*. 14. Ulusal Turizm Kongresi. 05-08 Aralık, Bildiri Kitabı İçinde (1150-1162). Kayseri
- Erbaş, A., Temizkan, R. & Cankül, D. (2015). "Turizmde Nitelikli Personelin Sektöre Kazandırılması: Tiyader Modeli" I. Eurasia International Tourism Congress: Current Issues, Trends and Indicators, 28-30 May. Cilt: 3, ss. 615-622.
- Erbaş, A., Temizkan, R. & Cankül, D. (2016). *National Tourism Planning Based On University Degrees And Tourism Professions: Tiyader Model*, 6th International Interdisciplinary Business-Economics Advancement Conference (Conference Proceedings), ISSN: 2372-5885, May 9-13, Miami, Florida, USA.
- Erbaş, A., Cankül, D. & Temizkan, R. (2016). "Turizm Diplomalıların İstihdam Sorunu", *Journal of Recreation and Tourism Research*, Cilt: 3, No: 4, ss. 1-12.
- Gee, Y. C. (1997). *International Tourism: A Global Perspective*, Published by World, 1st Edition, Madrid.
- Gee, Y. C. (2002). "Tourism Employment Issues: the PATA Viewpoint", Human Resources in Tourism: Towards A New Paradigm, 26-27 Ocak, Madrid, Spain.
- Goeldner, R. C., Ritchie, B. R. J. & McIntosh, W. R. (2000). *Tourism (Principles, Practices, Philosophies)*, Eighth Edition, John Wiley & Sons, New York.
- Gündüzalp, M. (1992). "Kalkınmada Turizm ve Eğitimi", Turizm Eğitimi Konferans-Workshop, 9-11 Aralık, Ankara.
- Gürdal, M. (2002). *Türkiyede Mesleki Turizm Eğitiminin Yapısal Analizi, Okullaşma, Eğitimin Kalitesi, Staj, İstihdam Sorunları ve Çözüm Önerileri*, Turizm Eğitimi Konferans-Workshop, 11-13 Aralık, Ankara.
- Hacıoğlu, N. (1985). *Is Tourism Education Enough*, Milliyet Gazetesi, 6 May, ss. 8.
- Hartline, D. M. & Ferrell, C. O. (1996). "The Management of Customer-Contact Service Employees: An Empirical Investigation", *Journal of Marketing*, C: 60, No: 4, ss. 52-70.
- Haven-Tang, C. & Jones, E. (2008). "Labour Market and Skills Needs of the Tourism and Related Sectors in Wales", *International Journal of Tourism Research*, C: 10, ss. 353-363.
- Hawkins, E. D. (2002). "Emerging Information Technologies: Implications for Tourism and Human Resources", Human Resources in Tourism: Towards A New Paradigm, 26-27 Ocak, Madrid, Spain.
- Hayes, K. D. & Ninemier, D. J. (2009). *Human Resources Management in the Hospitality Industry*, John Wiley & Sons, New Jersey.
- Hudson, S. (2011). "North America", An International Handbook of Tourism Education (Ed. Airey, D. & Tribe, J.), Routledge, London and New York.
- Jafari, J. & Sola, F. E. (1996). "Human Resources Development and Quality Tourism: A Multi-Conference Report", *Annals of Tourism Research*, C: 23, No: 1, ss. 228-231.

- Jenkins, L. C. (1997). *Tourism Educational Systems, Institutions and Curricula: Standardisations and Certification*, Human Capital in the Tourism Industry of the 21st Century, 21–23 Ocak 1996, Madrid, Spain, First Edition, Published by The World Tourism Organization.
- Kelley, W. S. (1992). “Developing Customer Orientation Among Service Employees” , *Journal of Academy of Marketing Science*, C: 20, No: 1, ss. 27-36.
- Kızıllırmak, İ. (2000). “Yükseköğretilerin Turizm ve Otelcilik Programlarının Turizm Sektörünün Beklentileri Doğrultusunda Değerlendirilmesi” , *Milli Eğitim Dergisi*, C: 147, ss. 54-60.
- Kocaoğlu, B. (1992). *Turizm Eğitiminde Kalite Kavramının Öğretimi*, Turizm Eğitimi Konferans-Workshop, 09-11 Aralık, Ankara.
- Kozak, M. (1992). *Mesleki Turizm Eğitimi Veren Yükseköğretim Kurumlarında Ders Programlarının Hazırlanması*, Turizm Eğitimi Konferans-Workshop, 9-11 Aralık, Ankara
- Kusluvan, S. & Kusluvan, Z. (2000). “Perceptions and Attitudes of Undergraduate Tourism Students Towards Working in The Tourism Industry in Turkey” , *Tourism Management*, C: 21, ss. 251-269.
- Küçükaltan, G. Y. (2002). *Türkiyede İç Turizme Katılmada Yaygın Turizm Eğitiminin Rolü: Fransa İle Karşılaştırmalı Bir Yaklaşım*, Turizm Eğitimi Konferans-Workshop, 11-13 Aralık, Ankara.
- Lee-Ross, D. & Pryce, J. (2010). *Human Resources and Tourism (Skills, Culture and Industry)*, Channel View Publications, UK.
- Leslie, D. & Richardson, A. (2000). “Tourism and Cooperative Education in UK Undergraduate Courses: are the Benefits Being Realized?” , *Tourism Management*, C: 21, ss. 489-498.
- Lipman, G. (1997). *“Human Capital in the Tourism Industry”* , Human Capital in the Tourism Industry of the 21st Century, 21–23 Ocak 1996, Madrid, Spain, First Edition, Published by The World Tourism Organization.
- Lohmann, M. & Jafari, J. (1996). “Tourism Education and Training” , *Annals of Tourism Research*, C: 23, No: 2, ss. 490-492.
- MacVigar, A. & Rodger, J. (1996). “Computerized Yield Management Systems: A Comparative Analysis of the Human Resource Management Implications” , *International Journal of Hospitality Management*, C: 15, No: 4, ss. 325-332.
- Mattila, S. A. & Enz, A. C. (2002). “The Role of Emotions in Service Encounters” , *Journal of Service Research*, C: 4, No: 4, ss. 268-277.
- Mayaka, M. (2011). “East Africa” , *An International Handbook of Tourism Education* (Ed. Airey, D. & Tribe, J.), Routledge, London and New york.
- Mayaka, M. & King, B. (2002). “A Quality Assessment of Education and Training for Kenya’s Tour-Operating Sector” , *Current Issues in Tourism*, C: 5, No: 2, ss. 112-133.
- Mayaka, M. & Akama, J. S. (2007). “Systems Approach to Tourism Training and Education: The Kenyan Case Study” , *Tourism Management*, C: 28, ss. 298–306.
- Mihalič, T. (2011). *“Slovenia”* , *An International Handbook of Tourism Education* (Ed. Airey, D. & Tribe, J.), Routledge, London and New york.
- Odabaşı, Ş. (2002). *Turizm Bakanlığının Uluslar Arası Eğitim Faaliyetleri*, Turizm Eğitimi Konferans-Workshop, 11-13 Aralık, Ankara.
- Ölçme, Seçme & Yerleştirme Merkezi (ÖSYM) (2017). *2017 ÖSYS Yerleştirme Sonuçları Klavuzu*, [https://dokuman.osym.gov.tr/pdfdokuman/2017/OSYS/YER/Tablo-4\\_12082017.pdf](https://dokuman.osym.gov.tr/pdfdokuman/2017/OSYS/YER/Tablo-4_12082017.pdf)
- Ölçme, Seçme & Yerleştirme Merkezi (ÖSYM) (2017). *2017 ÖSYS Yükseköğretim Programları ve Kontenjanları Klavuzu*, <http://www.osym.gov.tr/TR,13263/2017-osys-yuksekokretim-programlari-ve-kontenjanlari-klavuzu.html>
- Özdoğan, N. O. & Çavuş, Ş. (2009). *“Türkiye’de Turizm Eğitiminin Yapısı ve Gelişimi”*, (Ed. Çavuş, Ş., Ege, Z. & Çolakoğlu, E. O.), Türk Turizm Tarihi Yapısal ve Sektörel Gelişim, Detay Yayıncılık, Ankara.
- Pavesic, D. V. & Breymer, R. A. (1990). “Job satisfaction; What is Happening to the Young Managers” , *Cornell Hotel and Restaurant Administration Quarterly*, C: 31, No: 1, ss. 90-96.
- Pizam, A. & Shani, A. (2011). “The Nature of the Hospitality Industry: Present and Future Managers’ Perspective” , (Çeviren: Türksoy, A.), *Anatolia: Turizm Araştırmaları Dergisi*, C: 22, No: 1, ss. 76-86.

- Ritchie, B. R. J. (2000). *Education, Encyclopedia of Tourism* (Ed. Jafari, J.), Routledge, London and New York.
- Sharpley, R. (2009). *Tourism Development and The Environment: Beyond Sustainability*, Earthscan Publication, London.
- Sharpley, R. & Telfer, J.D. (2002). *Tourism and Development Concepts and Issues*, Channel View Publications.
- Singh, S. (1997). "Developing Human Resource for The Tourism Industry With Reference to India" , *Tourism Management*, C: 18, No: 5, ss. 299-306.
- Singh, N., Hu, C. & Roehl, S. W. (2007). "Text Mining A Decade of Progress in Hospitality Human Resource Management Research: Identifying Emerging Thematic Development" , *Hospitality Management*, C: 26, ss. 131-147.
- Solà, F. E. (2002). *"Tourism Employment: Toward a New Paradigm"* , Human Resources in Tourism: Towards A New Paradigm, 26-27 Ocak, Madrid, Spain.
- Solnet, D. (2007). "Employee-Customer Linkages: A Social Identification Perspective in A Hotel Industry Context" , *Journal of Hospitality and Tourism Management*, C: 14, No: 2, ss. 129-143.
- Szivas, E., Riley, M. & Airey, D. (2003). "Labor Mobility into Tourism Attraction and Satisfaction" , *Annals of Tourism Research*, C: 30, No: 1, ss. 64-76.
- Temizkan, R. (2015). *Turizm İşletmelerinde İnsan Kaynakları Yönetimi*, (Ed. Pelit, E.), Grafiker Yayınları, Ankara.
- Temizkan, R. & Cankul, D. (2015). *2023 Stratejik Hedefleri İçin Stratejik Sektör Turizmde Ortak Akıl* (Ed. Temizkan, R & Cankul, D). Esogü Basımevi, Eskişehir.
- Temizkan, R. Erbaş, A., & Cankul, D. (2014). "Turizm Personeli Meslek Yasası Mümkün mü?" , *Journal of Recreation and Tourism Research*, Cilt: 1, No: 4, ss. 22-30.
- Tesone, V. D. (2004). "Development of a Sustainable Tourism Hospitality Human Resources Management Module: A Template For Teaching Sustainability Across The Curriculum" , *International Journal of Hospitality Management*, C: 23, No: 3, ss. 207-237.
- Timur, A. (1992). *Türkiye'de Turizm Eğitiminin Yapısı, Uygulanan Politikalar ve Sonuçları*, Turizm Eğitimi Konferans- Workshop, 9-11 Aralık, Ankara.
- Tuna, M. (2002). *Turizm İşletmeciliği ve Otelcilik Alanında Eğitim Veren M.Y.O.'nın Sorunlarına İlişkin Bir Araştırma*, Turizm Eğitimi Konferans-Workshop, 11-13 Aralık, Ankara.
- Üngüren, E. & Ehtiyar, R. (2009). "Türk ve Alman Öğrencilerin Umutsuzluk Düzeylerinin Karşılaştırılması ve Umutsuzluk Düzeylerini Etkileyen Faktörlerin Belirlenmesi: Turizm Eğitimi Alan Öğrenciler Üzerinde Bir Araştırma" , *Journal of Yasar University*, C: 4, No: 14, ss. 2093-2127.
- Ünlüöenen, K. & Boylu, Y. (2005). "Türkiye'de Yükseköğretim Düzeyinde Turizm Eğitimindeki Gelişmelerin Değerlendirilmesi" , *Elektronik Sosyal Bilimler Dergisi*, C: 3, No: 12, ss. 11-32.
- Ünlüöenen, K. & Boylu, Y. (2009). *Türkiye'deki Örgün Turizm Eğitime İlişkin Rakamsal Gelişmelerin Değerlendirilmesi*, 10. Ulusal Turizm Kongresi, 31-24 Ekim, Mersin.
- Veijola, S. (2010). " Introduction: Tourism as Work" , *Tourism Studies*, C: 9, No: 2, ss. 83-87.
- Wall, G. & Mathieson, A. (2006). *Tourism Change, Impact and Opportunities*, Pearson.
- Winberg, M. (2002). *"Official Inauguration"* , Human Resources in Tourism: Towards A New Paradigm, 26-27 Ocak, Madrid, Spain.
- World Travel & Tourism Council. (2015). <https://www.wttc.org/media/files/reports/economic%20impact%20research/regional%202015/world2015.pdf> 10 Ocak 2018.
- Yanardağ, Ö. & Avcı, M. (2012). "Turizm Sektöründe İstihdam Sorunları: Marmaris, Fethiye, Bodrum İlçeleri Üzerine Ampirik Bir İnceleme" , *Ege Stratejik Araştırmalar Dergisi* C: 3, No: 2, ss. 39-62.
- Yeşiltaş, M., Öztürk, Y. & Hemmington N. (2010). "Tourism Education in Turkey and Implications for Human Resources" , *Anatolia: An International Journal of Tourism and Hospitality Research*, C: 21, No: 1, ss. 55-71.

# The Effect Of The Servant Leadership Perceptions On Job Satisfaction

Neriman celik, Aykut Beduk

## 1. Introduction<sup>5</sup>

Leaders have left significant effects on societies where they live as well as on other societies throughout the history of mankind and indeed many of them have had stories about them being related for centuries from generation to generation due to the deep imprints they have left in history. Similar to the influences of military, political and social leaders, leaders of organizations have also been recognized as important figures for centuries in terms of the profitability and continuity of their organizations. Therefore, various leadership theories have been proposed with regard to managerial (administrative) skills of organizations. In a sense, these have been theories involving the zeitgeist of the period when they were proposed, the existing economic, social, commercial and administrative relationships and basic administrative rules and transmission of them to future centuries.

The second half of the 20th century, the last quarter in particular, corresponds to years when mankind began to make significant progress in educational, economic, social, commercial and health fields. These years were at the same time those when new administrative and leadership theories were developed in order to solve emerging leadership questions. One of these new administrative (managerial) styles concerns the servant leadership theory. Although the servant leadership theory was introduced into the relevant literature by Greenleaf in 1970, it became one of the theories about which several studies have been conducted in the past ten years especially to explore it in its various aspects.

When this situation is investigated in terms of the tourism sector, it is observed that the actors in the sector overlap significantly with one another with regard to the features they possess because “service”, which is proposed as an asset in the service enterprises, is performed by people. At the same time, the fact that external environmental factors in service enterprises are in a constant state of change requires that the enterprises adjust to these changes in order to survive. In addition, service enterprises possess an organizational image that will be shaped up in accordance with the quality of the services offered and customer satisfaction. Therefore, it is important that desires and demands of employees at service enterprises be taken into consideration, urgent needs of employees be met, their personal and professional developments be ensured and they be encouraged for continuous learning (Çevik & Kozak, 2010, p. 80-85).

This can be implemented through servant leaders who are clearly focused on the needs, development and progress of their members. The focus of servant leadership on the needs of members distinguishes it from other leadership theories because servant leadership is concentrated on a kind of leadership that is stripped of its own interests and antagonizes greed. Explaining the relationship between the servant leader and their members, Mayer states that servant leaders focus on three fundamental human needs (autonomy, relationship, proficiency) in organizations. Servant leaders allow for their members to perform their tasks within the framework of these needs and want their members to develop feelings of confidence and mastery and point out that servant leadership will increase job satisfaction and organizational performance (Mayer, 2010, p. 148-153).

The concept of job satisfaction is one of the most challenging elements used in studies concerning industrial relations (Locke, 1976; Seashore & Taber, 1975, p. 333) and has reached today being one of the major topics of interest in the field of organizational behavior as an attitude of employees (Luthans, 1995, p. 125). For, although the topic of job satisfaction refers especially to individuals’ attitudes

---

<sup>5</sup> Article based on the doctoral dissertation of Neriman Çelik, entitled “*The Effect Of The Servant Leadership Perceptions On Organizational Identification And Job Satisfaction In Accommodation Enterprises: The Case Of Konya*” Selcuk University, which is issued in 2017 under the counseling of Professor. Dr. Aykut Bedük

concerning their working life (Čiarnienė et al., 2010, p. 978), it has tended to cover fields of research of not only industrial relations but also psychology (Fincham & Rhodes, 1999, p. 155) and the concept has been included in numerous articles and theses ranging from studies by Locke, who authored the best-known work in the field, to those at the present time. Indeed, Oshagbemi put the number of these studies at 3.350 (Oshagbemi, 1999, p. 329). Having written the most common study in the field of job satisfaction, Locke defines job satisfaction as a positive emotional state that an individual feels after evaluating the task s/he has performed (Locke, 1976, p. 2).

In his study, Locke described job satisfaction as individuals' being highly content with their jobs (Čiarnienė et al., 2010, p. 978) and a general expression of positive feelings they feel towards their jobs (Ensher et al., 2001, p. 56; Çelik, 2011, p. 8) and defined it as a pleasant emotional state arising from an evaluation of the task when an individual attains to or facilitates job values (Spector, 1996, p. 214-215).

When the definition of Locke, who is the most frequently cited person with regard to job satisfaction, is taken as a basis, it can be argued that job satisfaction is a result of an act between an individual and their environment, and a function of the perceived relationship between what an individual wants to derive from his job and what is obvious or what he proposes (Wagner III & Hollenbeck, 1998, p. 107). Job satisfaction expresses an attitude originating from purposeful behavior; attainment of job satisfaction begins with motivation and a change is made in a person's level of job satisfaction (Özgen et al., 2002, p. 337).

Some organizational behaviors observed in organizations are thought to be a result of job satisfaction or job dissatisfaction and various researchers have made specific efforts to demonstrate that job satisfaction is closely related to behaviors that have a significant effect on the welfare of organizations. These efforts are considered to be important due to the potential worrisome effects of job satisfaction on variables in organizations (Spector, 1996, p. 232). Negative effects on an organization can be documented when the level of satisfaction with the job is low. When the results of studies conducted in recent years are examined, numerous positive effects are observed such as that individuals with high levels of job satisfaction have, compared with other employees, better physical and mental health, can more easily learn duties related to a new task, help co-workers and customers, are more eager to cooperate; also a reduction in industrial accidents and complaints is recorded (Luthans, 1995, p. 128-13).

Although such discourses exist concerning job satisfaction, the topic of job satisfaction may also be a subject that is not treated very seriously. Therefore, it becomes difficult for managers in such organizations to understand and develop attitudes and emotions about employees' ideas regarding their jobs and in organizations where high levels of job dissatisfaction prevails (Wagner III & Hollenbeck, 1998, p. 107), it is reflected in the form of changing jobs, escape, raising one's voice, attachment and indifference (Silah, 2005, p. 128).

When the above explanations are taken into consideration, it is observed that different results emerge with regard to job satisfaction in organizations. Therefore, one needs to determine the existing situation in order to be able to reduce effects of job satisfaction or dissatisfaction in organizations and change the situation to the benefit of organizations.

According to Greenberg and Baron, when the negative results of the aforementioned job dissatisfaction are taken into consideration, first a need arises to find ways of increasing satisfaction and preventing dissatisfaction with the job, and in this regard suggestions should be made by asking the question What can be done to increase job satisfaction because satisfaction expresses an end desired by individuals. Suggestions are made such as paying fair wages to employees, raising the quality of supervision, bringing organizational power under control and employing people in jobs that are commensurate with their interests (Greenberg & Baron, 1997, p. 188-189).

## **2. Effects of Perceptions of Servant Leadership on Job Satisfaction**

Leadership is an enchanting story composed of theories developed with regard to nature of human behavior and ways of gaining power and influence for people in organizations (Brownell, 2010, p. 363). Historical development of the concept of leadership dates far back to the 1300s. Although it was first

referred to as a pathfinder or beacon in that period, the beginning of the scientific use of the term leadership in the relevant literature took place in the late 20th century (Güney, 2012, p. 34).

Given that leadership is defined as a concept that shapes up innumerable groups and organizations such as business, state, life and workspace and is believed to be indispensable for them, the question “What is the factor that makes a leader great?” crosses one’s mind. A charming response to be given would be Great followers!. Although this response may have some relevance, the issue involves a much a more complicated dimension. This complication ends with the emergence of various theories (Robbins, 1997, p. 238). Rise of a new era and the world’s becoming a place that is growing increasingly hard to control and unpredictable and faced with frequent upheavals have caused many tools that served mankind in the past to become useless today and led to the appearance of new models of leadership (Werhane & Morland, 2011, p. 1).

Robbins provides a brief account of leadership theories from part to present in the following manner: While initial theories endeavored to find universal leadership qualities possessed by leaders, whereas second stage theories attempt to explain leadership in terms of the behaviors of a leader. However, both of the approaches involve starts that are based on a mistaken and oversimplified understanding of leadership. Therefore, third theories consist of theories that take a constant interest in new theories to explain the inadequacy of models by bringing together the diversity of the research findings of previous leadership theories (Robbins, 1997, p. 238).

Where we stand today is that inadequacy of the theories proposed and their failure to meet needs have come to an end with the emergence of new leadership theories. One of the theories among the modern leadership theories is the servant leadership model.

A servant leader is a person who takes the lead serving with an innate, inherent desire, harmonizes service with their beliefs and strives to meet others’ priorities (Boyum, 2006, p. 3).

Greenleaf, the originator of the theory of servant leadership, was born in Terre Haute, Indiana (the USA) in 1904. The city where he lived closely witnessed the industrial revolution by virtue of his birth date. His father George, who was a technician by profession, was one who liked to serve people and Greenleaf stated in his last writing that the original servant leader he took as an example for himself was his father. Greenleaf began his engineering education at Rose Polytechnic and then transferred to Carleton College in Minnesota and completed his education in Mathematics here in 1926 (Frick, 2016, p. 1).

*“A servant leader, as was described in Leo, is above all a servant. Leadership begins when a person wants, with a natural inspiration, to serve, to serve before everything else. Then, he or she chooses to act as a leader through a conscious preference. A servant leader is in stark contrast with a person who is first and foremost a leader because maybe in an unusual way he or she needs to reduce the impulse for acquiring power or financial gains”* (Greenleaf, 1970, p. 7).

Leo, who Greenleaf defines as an extraordinary being, is a person in the novel who fulfils services like carrying suitcases of people consisting of members of Society Brotherhood who took part in the journey each for different purposes, and at the same time is the person who holds all those different people together with his joy and songs. Everything goes smoothly when Leo is accompanying the group. However, all is upset when Leo disappears and although passengers are given written rules describing how they are supposed to act in a such a situation, the group falls into disagreement as to the proper course of action to take and the journey comes to an end; thus, the group fails to complete the journey. One of those who joined the journey (author Hesse) wants to find Leo and write a history of the journey and the society, but since he wants to do this without permission, this constitutes a crime according to the rules of the society. The fact that Leo, who was previously known to be a servant, acts as leader of the society and decides as the chair of the court during the trial of this person, reveals that it was Leo the servant leader who organized the journey and the group (Hesse, 2016, p. 65).

How will it be understood by the leader himself and his members (followers) that the leader is indeed the servant leader? On his book Servant Leadership, which was the first of a three-volume series concerning the concept of servant leadership and published in 1970, Greenleaf states that there is no clear and definite answer to this question, but that the net effect which a servant leader will have on people around him through a definition of whether he develops or consumes people around him with



his very presence or his description as being an ineffective person and that servant character of the servant leadership must absolutely precede leadership (Greenleaf, 1970).

Characteristics of a servant leader and organizational outcomes are in interaction with each other. The need for serving and motivation constitute the foundation of the model and the need for serving is the prioritized and most important attitude for a leader; honesty, justice, integrity and other values which he has internalized significantly affect his behaviors and attitudes (Dierendonck, 2011, p. 1234).

### 3. Materials and Methods

The sample of the study is made up of the employees in the accommodation enterprises operating in the Konya. The number of employees working at accommodation enterprises, who constitute the population of this study, is not known exactly. Therefore, the formula  $n = z^2 \cdot (p \cdot q) / e^2$ , which was used by Chi and Qu, (2008), was made use of in our study to determine the size of the sample as the population was unknown and consequently the size of the sample was calculated to be 385 people. After the size of the sample was determined to be 385 people, a total of 620 surveys were distributed by the researcher herself to employees selected according to the convenience sampling method. Of the 420 surveys which were returned by the employees involved in the study, those that were incomplete or returned unanswered were removed from the study and thus 379 surveys (analytical units) which were scientifically eligible were obtained. The rate of return for the surveys was 61.1 %. This rate indicates that the sample represents the population adequately (Retold by Kaplan, 2013, p. 97 from Lewis & Harvey, 2001). The survey method was used in the study as the data collection instrument. A survey developed by Dierendonck and Nuijten (2011, p. 252-255) and adapted to Turkish by Duyan and Van Dierendonck (2014, p. 13) was used to determine perceptions of servant leadership in the study; on the other hand, a survey developed by Hackman and Oldham (1975) and adapted to Turkish by Şeşen and Basım (2010) was used. Simple linear regression analysis was used to test the hypotheses of the study concerning the effects of servant leadership on job satisfaction from the perspective of employees working at accommodation enterprises. Simple linear regression analysis, frequency and percentage, Cronbach's Alpha are used in the study.

**Hypothesis 1:** Employees' perceptions of servant leadership affect job satisfaction positively.

**Hypothesis 1<sub>a</sub>:** The empowerment subdimension of the servant leadership affects job satisfaction positively.

**Hypothesis 1<sub>b</sub>:** The standing back subdimension of the servant leadership affects job satisfaction.

**Hypothesis 1<sub>c</sub>:** The accountability subdimension of the servant leadership affects job satisfaction positively.

**Hypothesis 1<sub>d</sub>:** The forgiveness subdimension of the servant leadership affects job satisfaction positively.

**Hypothesis 1<sub>e</sub>:** The courage subdimension of the servant leadership affects job satisfaction positively.

**Hypothesis 1<sub>f</sub>:** The authenticity subdimension of the servant leadership affects job satisfaction positively.

**Hypothesis 1<sub>g</sub>:** The humility subdimension of the servant leadership affects job satisfaction positively.

**Hypothesis 1<sub>h</sub>:** The stewardship subdimension of the servant leadership affects job satisfaction positively.

### 4. Findings

According to the results of the demographic, 57% of the participants are male, %43 of the participants are female; %48 of the participants are single, %52 of the participants are married, %68 of the participants are undergraduate, %34,6 of the participants are between the ages of 18-25. Cronbach's Alpha analysis results are given in Table 1;

Table 1. Cronbach's Alpha Analysis Results

	Cronbach's Alpha	Number of questions
<b>Servant Leadership</b>	<b>0,941</b>	<b>30</b>
• Empowerment	0,965	7
• Standing Back	0,922	3
• Accountability	0,954	3
• Forgiveness	0,877	3
• Courage	0,909	2
• Authenticity	0,855	4
• Humility	0,909	5
• Stewardship	0,876	3
<b>Job Satisfaction</b>	<b>0,967</b>	<b>5</b>

Pearson correlational analysis of servant leadership and job satisfaction dimensions is presented in Table 2, which is the final result;

Table 2. Pearson Correlational Analysis

	E mp.	St and.	Acc ount.	Fo rgiv.	C our.	A uth.	H um.	S tew.	S erv.	J .Sts.
Em	1									
p. Sta	,7	1								
nd. 09**										
Acc	,4	,2	1							
ount. 65**		56**								
For	,3	,4	-	1						
giv. 33**		03**	,145**							
Co	,1	,2	-	,1	1					
ur. 39**		61**	,104*	17*						
Aut	,6	,4	,54	,1	,1	1				
h. 68**		78**	6**	07*	93**					
Hu	,6	,5	,41	,2	,2	,7	1			
m. 84**		98**	9**	74**	87**	22**				
Ste	,6	,5	,35	,2	,2	,6	,7	1		
w. 30**		77**	0**	97**	41**	14**	31**			
Ser	,9	,7	,54	,4	,3	,8	,8	,7	1	
v. 03**		75**	1**	04**	03**	10**	69**	95**		
J.St	,7	,5	,43	,2	,1	,6	,7	,7	,8	1
s. 87**		97**	2**	65**	03*	84**	29**	18**	21**	

\*\*  $p < 0,01$ ,  $H_0: \rho_{xy} = 0$

According to the results of the Pearson correlational analysis given in Table 2; there are positive and meaningful relationships between servant leadership and job satisfaction ( $r = 0,821$ ;  $p < 0,01$ ), empowerment and job satisfaction ( $r = 0,787$ ;  $p < 0,01$ ), standing back and job satisfaction ( $r = 0,597$ ;  $p < 0,01$ ), accountability and job satisfaction ( $r = 0,432$ ;  $p < 0,01$ ), forgiveness and job satisfaction ( $r =$

0,265;  $p < 0,01$ ), authenticity and job satisfaction ( $r = 0,684$ ;  $p < 0,01$ ), humility and job satisfaction ( $r = 0,729$ ;  $p < 0,01$ ), stewardship and job satisfaction ( $r = 0,718$ ;  $p < 0,01$ ).

Simple linear regression analysis was conducted to test the hypotheses concerning the relationships between servant leadership and job satisfaction and the results are given in Table 3.

**Table 3. Results of the Regression Analysis Regarding the Effects of Perceptions of Servant Leadership on Job Satisfaction**

Coefficients	Non-standardized coefficients		Standardized coefficients	t	p
	$\beta$	Std Error	$\beta$		
Constant	-,678	,145		-4,685	,000
Servant Leadership	1,191	,043	,821	27,951	,000

$p < 0,01$   $F = 781,245$   $R^2 = 0,674$  Dependent Variable: Job Satisfaction (Tolerance:1; VIF:1; Durbin Watson: 1,837)

According to the results of the regression analysis given in Table 3, in which servant leadership was independent variable and job satisfaction was dependent variable, is statistically significant ( $R^2 = 0,674$ ;  $F_{(1;378)} = 781,245$ ;  $p < 0,01$ ). It is observed that servant leadership, which is the explanatory variable in the model, explains 67.4 % of the variance in job satisfaction, which is the dependent variable. According to the findings of the study, it is understood that servant leadership has a positive and significant effect on job satisfaction ( $\beta = 0,821$ ;  $p < 0,01$ ). Therefore, hypothesis **H1** is supported.

Simple Linear Regression Analysis was conducted to test the hypothesis concerning Relationships between Subdimensions of Servant Leadership and Job Satisfaction and the results are given in Table 4.

**Table 4. Results of the Regression Analysis Regarding the Effects of Sub-dimension of Servant Leadership on Job Satisfaction**

Variables	Non-standardized coefficients		Standardized coefficients	t	p
	$\beta$	Std. Error	$\beta$		
Constant	,168	,184		2,91	,362
Empowerment	,437	,048	,438	9,106	,000
Standing Back	-,001	,045	-,001	-,015	,988
Accountability	-,025	,034	-,026	-,728	,467
Forgiveness	-,019	,034	-,017	-,542	,588
Courage	-,102	,030	-,101	3,414	,001
Authenticity	,143	,050	,128	2,856	,005
Humility	,215	,055	,188	3,884	,000
Stewardship	,304	,048	,265	6,344	,000

$p < 0,01$   $F = 127,167$   $R^2 = 0,728$  Dependent Variable: Job Satisfaction Level; Tolerance Values: 0,311;0,423;0,57;0,712;0,822;0,361;0,306;0,413)

According to the results of the regression analysis, VIF values vary between 1,216 and 3,265. These values are far lower than 10, which is regarded as the top limit. On the other hand, the lowest tolerance value in the model is 0.57 and this value is higher than 0.10, which is the bottom limit. Therefore, the problem of multiple connections was not encountered in the model. In addition, it is observed in the model that the Durbin-Watson coefficient is 1,910, and so the problem of auto-correlation was not encountered. According to the results of the regression analysis in Table 4, in the model where subdimensions of the servant leadership are independent variable and job satisfaction is dependent variable, the results are statistically significant ( $R^2 = 0,728$ ;  $F_{(8;378)} = 127,167$ ;  $p < 0.01$ ). It is seen that subdimensions of the perception of servant leadership, which are the explanatory variables in the model, account for 72.8 % of the variance in job satisfaction, which is the dependent variable. According to the findings of the study, it is understood that, of the subdimensions of the servant leadership, empowerment ( $\beta = 0,438$ ;  $p < 0.01$ ) has a positive and significant effect on job satisfaction; humility ( $\beta = 0,188$ ;  $p < 0.01$ ) has a positive and significant effect on job satisfaction; and stewardship ( $\beta = 0,265$ ;  $p < 0.01$ ) has a positive and significant effect on job satisfaction. Therefore, hypotheses **H1<sub>a</sub>**, **H1<sub>g</sub>**, and **H1<sub>h</sub>** are supported. However, it is seen that standing back ( $\beta = 0,074$ ;  $p > 0.01$ ); accountability ( $\beta = 0,020$ ;  $p > 0.01$ ); forgiveness ( $\beta = 0,038$ ;  $p > 0.01$ ) and authenticity ( $\beta = 0,128$ ;  $p > 0.01$ ) have a positive but insignificant effect on job satisfaction. Consequently, hypotheses **H1<sub>b</sub>**, **H1<sub>c</sub>**, **H1<sub>d</sub>**, and **H1<sub>f</sub>** are not supported. In addition, it is observed that courage ( $\beta = -0,101$   $p < 0.01$ ) has a negative but significant effect on job satisfaction. Hence, hypothesis **H1<sub>e</sub>** is not supported.

## 5. Discussion and Conclusion

In this study, the effects of perceptions of servant leadership, which has increased in importance in recent years, on job satisfaction was dealt with conceptually and empirically. According to the findings of the regression analysis focused on the relationship between perceptions of servant leadership and job satisfaction, perceptions of servant leadership are seen to have a positive and significant effect on job satisfaction. The following works exist in the relevant literature concerning job satisfaction, Pelit & Öztürk 2010; Eren & Yalçıntaş 2017; Topaloğlu & Yalçıntaş 2017; Çetin 2014; Cerit 2016 Guillaume 2013; Mayer et al. 2008 found in their study had investigated the relationship between servant leadership and the need for followers (adherents) and job satisfaction empirically and found a positive and significant correlation between servant leadership and job satisfaction. Therefore, the findings of the studies cited above are in support of the findings of this study. It was seen in terms of the employees of the accommodation enterprises within the scope of this sample that empowerment, humility and stewardship dimensions of servant leadership affected job satisfaction however, the courage dimension had a significant yet negative effect on job satisfaction.

The other dimensions of servant leadership, namely *standing back*, *forgiveness*, and *accountability* did not have a significant effect on job satisfaction but the fact that standing back dimension could lead to internal motivation should be in conformity with the elements of the five job characteristics model proposed by Hackman and Oldham. It is expected that the standing back dimension should have a direct effect on internal and external motivations of employees at accommodation enterprises. In that case, it is thought that employees are influential on the five job characteristics proposed by Hackman and Oldham, because these characteristics include factors such as autonomy at work, participation in the work, responsibility, creativity, opportunities for individuals to use their skills and abilities and satisfactory feedback regarding individuals' performances (skill variety, task identity, task significance, autonomy and feedback) (Mottaz, 1985, p. 366).

However, the humility characteristic of the leader is also effective in employees' receiving a positive feedback. The fact that the humility dimension has a significant and positive effect on job satisfaction in the study supports this situation. In particular, the findings of the study indicating that stewardship, empowerment and authenticity factors have a positive effect on job satisfaction are in support of this situation. According to this, empowerment practices conducted on employees working at accommodation enterprises, paying attention to employees' skills and personal developments, setting goals encompassing the whole society and the quality of the ensuing benefits, managers' imposing responsibility on employees in this regard, managers' self-sufficiency and self-recognition

and improvement of employees in this direction as a result of servant leadership all seem to indicate that their internal and external motivations (such as the support of the superiors) will be affected positively.

## 6. References

- Akdöl, B. (2015). *Hizmetkâr Liderliğin İş Tatminine Etkisi: Bilişim Sektöründe Bir Uygulama*, Yayınlanmamış Doktora Tezi, İstanbul Üniversitesi, Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, İstanbul.
- Brownell, J. (2010). *Leadership in the Service of Hospitality*, Cornell Hospitality Quarterly, 21 (3), 363-378.
- Boyum, Ginny (2006). *The Historical and Philosophical Influences on Greenleaf's Concept of Servant Leadership: Setting the Stage for Scientific Theory Building*. Servant Leadership Research Roundtable, 1-12.
- Cerit, Yusuf (2016). *The Effects of Servant Leadership Behaviours of School Principals on Teachers' Job Satisfaction*, Educational Management Administration & Leadership 37(5).
- Ciarnien'e, R., Kumpikait'e, V., Vienažindien'e, M. (2010). *Development of Students' Competencies: Comparable Analysis*, Economics & Management, 15, 436-443.
- Çelik, M. (2011). *A Theoretical Approach To The Job Satisfaction*, Polish journal of Management Studies, 4, 7-15.
- Çetin, H. (2014). *Otel İşletmelerinde Hizmetkâr Liderliğin Çalışanların İş Tatmini Ve İşten Ayrılma Niyeti Üzerine Etkisi*, Nevşehir Hacı Bektaş Veli Üniversitesi Sosyal Bilimler Enstitüsü Doktora Tezi, Turizm İşletmeciliği Anabilim Dalı, Nevşehir
- Chi C.G., Qu, H. (2008). Examining The Structural Relationships Of Destination Image, Tourist Satisfaction And Destination Loyalty: An Integrated Approach, Tourism Management, 29 (4).**
- Çevik, S., Kozak, A. (2010). *Değişim Yönetiminde Dönüşümcü Liderlik ve Hizmetkar*, 1. Ulusal Turizm Kongresi 2-5 Aralık, Kuşadası.
- Dierendonck, v. D. (2011). *Servant Leadership: A Review and Synthesis*, Journal of Management, 37 (4), 1228-1261.
- Dierendonck, v. D., Nuijten, Inge (2011). *The Servant Leadership Survey: Development of a Multidimensional Measure*, Journal of Business Psychology, 26 (3), 249-267.
- Duyan, E. Cihan, Dierendonck Van Dick (2014). *Hizmetkâr Liderliği Anlamak: Teoriden Ampirik Araştırmaya Doğru*, Sosyoloji Konferansları Dergisi (Istanbul Journal of Sociological Studies), 49, 1-32.
- Ensher, A., Grant-Vallone, E. J., Donaldson, S. I. (2001). *Effects of Perceived Discrimination on Job Satisfaction, Organizational Commitment, Organizational Citizenship Behavior and Grievances*, Human Resource Development Quarterly, 12 (1), 53-72.
- Eren, F., Yalçintas, M. (2017). *Hizmetkar Liderlik ile İş Tatmini Arasındaki İlişki: Bir Havayolu Şirketi Örneği*, UIİD-IJEAS, (16. UIK Özel Sayısı).
- Fincham, R., Rhodes, P. (1999). *Principles Of Organizational Behaviour* (3th ed.). Oxford University.
- Frick, D. M. (2016). *Robert K. Greenleaf Biography*. Greenleaf Center for Servant Leadership, [www.greenleaf.org/about-us/robert-k-greenleaf-biography](http://www.greenleaf.org/about-us/robert-k-greenleaf-biography).
- Greenleaf, R. K. (1970). *The Servant As Leader*, Center for Applied Studies.
- Greenberg, J., Baron, R. A. (1997). *Behavior In Organizations: Understanding And Managing The Human Side Of Work* (6th ed.). Upper Saddle River, N.J.: Prentice Hall.
- Guillaume, O., Honeycutt, A., Savage-Austin, A. R. (2013). *The Impact of Servant Leadership on Job Satisfaction*, Journal of Business and Economics, 4 (5), 444-448.
- Güney, S. (2012). *Liderlik* (1.Baskı). Nobel Akademik Yayıncılık Eğitim Danışmanlık.
- Hesse, H. (2016). (Çev. Zehra Aksu Yılmaz), *Doğu Yolculuğu*, Can Sanat Yayınları A.Ş.
- Kaplan, A. (2013). *Otel İşletmelerinde Bireysel Hizmet Odaklılığın İç Girişimcilik Performansı Üzerindeki Etkisi: Algılanan Çevresel Belirsizliğin Aracı Rolü*, Nevşehir Hacı Bektaş Veli Üniversitesi, Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Yayınlanmamış Yüksek Lisans Tezi, Nevşehir.
- Locke, E. A. (1976). *The Nature and Causes of Job Satisfaction* in Dunnette, M. D. *Handbook of Industrial and Organizational Psychology* (1st Ed.), Chicago, IL: Rand McNally,

1297-1349.

Luthans, F. (1995). *Organizational Behavior* (7 th Edith.). McGraw-Hill.

Mayer, D. M, Bardes, M., Piccolo, R. F. (2008). *Do servant-leaders help satisfy follower needs? An organizatioanl jusitice perspective*, *European Journal of Work and Organizational Psychology*, Psychology Press, 17 (2), 180-197.

Mayer, D., (2010). *Servant-Leaders'Influence on Followers. (Edited by Dirk van Dierendonck and Kathleen Patterson Sendjaya, Sen). Servant Leadership Developments in Theory and Research Personal and Organizational Excellence Through Servant Leadership*. Switzerland: Springer International Publishing.

Mottaz, C. (1985). *The Relative Importance Of Intrinsic And Extrinsic Rewards As Determinants Of Work Satisfaction*, *The Sociological Quartely*, Official Journal Of Midwest Sociological Society, 26 (3).

Oshagbemi, T. (1999). *Overall Job Satisfaction: How Good Are Single Versus Multiple-Item Measures?*, *Journal of Managerial Psychology*, 14 (5), 388-403.

Özgen, H., Öztürk, A., Yalçın, A. (2002). *İnsan Kaynakları Yönetimi*, Adana: Nobel Kitabevi.

Pelit, E., Öztürk, Y. (2010). *Otel İşletmeleri İlgörenlerinin İş Doyum Düzeyleri: Sayfiye ve Şehir Otel İşletmeleri İlgörenleri Üzerinde Bir Araştırma*, *İşletme Araştırmaları Dergisi* 2(1).

Robbins, S. P. (1997). *Essentials of Organizational Behavior* (5th ed.). Upper Saddle River, N.J.: Prentice Hall.

Seashore, S., Taber, T. (1975). *Job Satisfaction Indicators and Their Correlates*, *American Behavioral Scientist*, 18 (3), 333-368.

Silah, M. (2005). *Endüstride Çalışma Psikolojisi* (2.Baskı). Eskişehir: Seçkin Yayıncılık.

Spector, P. E. (1996). *Industrial And Organizational Psychology: Research And Practice* (7th Edition).

Şeşen, H., Basım, N. (2010), *Çalışanların Örgütsel Adalet Algısının Örgütsel Vatandaşlık Davranışlarına Etkisi: İş tatmininin Aracılık Rolü*, *ODTÜ Geliştirme Dergisi*, 37(8), 171-193.

Topaloglu, C., Yalçintas, M. (2017). *Yerel Yönetimlerde Hizmetkar Liderlik Davranışları İle Örgütsel Vatandaşlık Davranışı Ve İş Tatmini Arasındaki İlişki*, *Global Business Research Congress*, (3).

Van Dick, R., Wagner, U., Stellmacher, J. Christ, O. (2004). *The Utility Of A Broader Conceptualization Of Organizational Identification: Which Aspects Really Matter?*, *Journal of Occupational and Organizational Psychology*, 77, 171– 191.

Wagner III, J. A, Hollenbeck, J. B. (1998). *Organizational Behavior: Securing Competitive Advantage*, New Jersey: Prentice Hall.

Werhane, P. H., Painter-Morland, M. (2011). *Leadership, Gender, and Organization*. (Edited: Patricia H. Werhane). Leadership, Gender, and Organization. DePaul University, Chicago, IL, USA and Mollie Painter-Morland, Springer Science Business Media B.V.



# Performance Measurement in Supply Chain Management

Aliyenur Demiroglu, Mehmet Ozer Demir

## 1. Introduction

Logistics is not a new concept, it may have existed till the prehistoric ages, however it is 1980's that business world started to pay attention to it. Every new product introduced to market caused death of other products which resulted in a short product life. As the life-span (product life cycles) of the products begin to shorten, under increasing consumer expectations, businesses responded with decreasing design, manufacturing and distribution process. Supply chain management (SCM) became popular in order to decrease the time required from design to end consumer purchase, with the help of technological developments like GSM, internet or business process developments like night delivery. Today, not companies but supply chains compete, business with better and faster supply chain win the competition.

Supply chain is defined with different approaches, authors used definitions according to the study conducted. Beamon (1998) defined supply chain as "a structured manufacturing process wherein raw materials are transformed into finished goods, then delivered to end customers", or Pienaar and Vogt (2009) defines Supply Chain as "a general description of the process integration involving organizations to transform raw materials into finished goods and to transport them to the end-user". Definitions in a similar context tend to define supply chain with the processes required, to determine the core determinants of an effective supply chain. Mostly, they use the flow of materials and destination of the materials stocked for definition purposes. According to these definitions, supply chain starts with raw materials, continues with value adding transportation activities and finishes with end consumer.

As the business changes with competing consumer demands, authors evolved supply chain definition to cope with the change. Little (1999) defines supply chain as "the combined and coordinated flows of goods from origin to final destination, also the information flows that are linked with it". Chow and Heaver (1999) defines Supply Chain as "the group of manufacturers, suppliers, distributors, retailers and transportation, information and other logistics management service providers that are engaged in providing goods to consumers. A Supply Chain comprises both the external and internal associates for the corporate."

Ayers (2006) defines Supply Chain as "life cycle processes involving physical goods, information, and financial flows whose objective is to satisfy end consumer requisites with goods and services from diverse, connected suppliers". Mentzer et al. (2001) defines Supply Chain as "a set of entities (eg. organizations or individuals) directly involved in the supply and distribution flows of goods, services, finances, and information from a source to a destination (customer)."

Today, supply chain is not considered only as the transportation of material, but also the service, finance, information flow that adds values to end consumer, involving a group of manufacturer, supplier, distributor, retailer, transportation and information provider companies which form a network.

## 2. Supply Chain Management

Supply chain is a network of companies whose terminal goal is to achieve high end consumer satisfaction. A supply chain should work like a chain literally, as the one weakest link in a chain determines the overall performance of the chain, in a supply chain every partner's contribution determines the total value added and overall performance of the supply chain. Supply chain management concept has especially gained ground with the rise of multi-national companies, as the production of a product is separated among different countries, smooth material flow is crucial for business processes (Langley, 2008). Today, competition is not between products but supply chains, which arouses the importance of supply chain management (Trkman, Stemberger, & Jaklic, 2005). Supply chain management is the managing of supply chain networks. As defined by Ayers (2006)



“Supply Chain management is the maintenance, planning, and Supply Chain processes activity for the satisfaction of consumers needs.”. Ganesan and Harrison (1995) has defined Supply Chain Management (SCM) as “a chain of facilities and distribution alternatives that performs the functions of obtainment of products, transformation of these products into intermediate and finished goods, and the distribution of these finished goods to customers”. H. L. Lee and Billington (1995) declare that Supply Chain Management (SCM) incorporates “the integration of activities taking place among facilities network that acquire raw material, transform them into intermediate products and then final goods, and deliver goods to customers through a system of distribution”. According to Christopher (1998) supply chain refers to “the organizations network that are involved in the diverse processes and activities that generate value in the form of goods and services in the hands of the end customer”. According to Grant, Lambert, Stock, and Ellram (2006), Supply Chain management refers to “corporate business processes integration from end users through suppliers that provides information, goods, and services that add value for customers”.

Supply Chain management definitions can be used to determine the important determinants of an effective supply chain:

- 1- integration of key business processes
- 2- value added to end consumer
- 3- the designing all activities
- 4- management of all activities
- 5- coordination and partnership with network partners
- 6- supply and demand management within and across corporate

Supply Chain Management (SCM) is the “strategic and efficient coordination of the conventional business functions and the strategies across these business functions within a specific corporate and across businesses within a supply chain, for the aims of developing the long-term performance of the corporate and the supply chain as an entire (Janvier-James, 2012).

In a traditional supply chain management, raw materials are the input of a plant, and usually materials are stocked in the plants inventory or a mediators warehouse, which will later be manufactured as a product. Finished products are then transported to the wholesalers, retailers or other mediators. In a supply chain there are various number of decision makers involved in numerous levels. In conclusion supply chain management is the ability to manage conflict of interest groups under one common goal, high end consumer satisfaction.

### **3. Performance Measurement in Supply Chain Management**

How performance should be measured is very important, weak measures may make the firm to see itself in a magnifying mirror, alter the development, mislead decision making or spending resources improperly. Accurate measurement of performance is crucial for planning and controlling the processes, as well as, it supports managers with tools to supervise motivation, development, communication and defining the problems (Waggoner, Neely, & Kennerley, 1999). Supply chain is a value adding process for the producer, wholesaler and the retailer. Retailers are the last link in chain that deals with end consumers, so, a supply chains goal should be a system that can effect end consumers buying decisions (Risch, 1987). If we approach the supply chain as a network companies, competition with the rivals leads to minimum stock levels resulting decreased costs (Zhou, 2011). Today, common view is that not individual companies but supply chains compete, and in order to manage the supply chain measuring supply chain management performance will be the first step because you cannot manage if you cannot measure the current performance (Das, 1994).

Measuring overall performance of a supply chain is crucial, although it is rigorous and difficult. Every decision maker involved in the network has its own goals and a considerable huge amount of material flow through the supply chain makes it more complex. Authors realized that supply chain performance measurement is a multi dimensional concept (Cirtita & Glaser-Segura, 2012; Dwayne Whitten, Green Jr, & Zelbst, 2012), as a result of such challenges academicians developed new performance measurement methods.

Auhors suggested that increase in the effectiveness is a result of supply chain (Bhasin, 2008; Christopher, 1998), however the relation is statistically weak. Especially, studies that focus on the overall performance of a supply chain stated that performance measures are unable to capture the effectiveness and efficiency of the supply chain (Gawankar, Kamble, & Raut, 2016).

Performance measurement is one of the most used variable in the literature, however what performance is still remains a mystery. From a historical point of view, first measurement methods are mostly financial and usually cash flows are taken into consideration. Over time, authors stated the need for overall performance measurement (Pursell, 1980). As the competition moved towards quality, product range and innovation, financial measures lost ground as data from accounting is not able to capture such variables. Meanwhile, financial performance measures usually take past years' data. So, financial measures state what is already done, thus, they donot provide any usefull information for future. Such developement in change in businness mentality forced academicians to develop alternative performance measurements other than financial.

Literatüre supports a variety of performance measurement methods for supply chains, SMART (Cross & Lynch, 1988), Performance Measurement Questionnaire (PMQ) (Dixon, Nanni, & Vollmann, 1990), The Balanced Scorecard (R. Kaplan & Norton, 1996; R. S. Kaplan & Norton, 2005), Strategic Performance Measurement System (Vitale, Mavrinac, & Hauser, 1994), Integrated Dynamic Performance Measurement System (IDPMS) (Ghalayini, Noble, & Crowe, 1997), Holistic Process Performance Measurement System (PPMS) (Kueng, 2000). Every performance measurement system has its advantages and down falls. It should always be in mind that performance measurement systems evolve with the business' requirements. There is actually no one perfect performance measurement for all time and all situations.

#### **4. Evaluation Of The Performance Measurement Systems**

Performance measurement is crucial for many sector, however, all the performance measurement systems develeoped has their own down falls. The performance measurement should be able to support managers with required data for accurate decisions. Traditional performance measurements based on accounting lacks the overall performance measures. In supply chain management where a network of firms works together to achieve high end consumer value, traditional mesaures provide insufficient data. Measures based on accounting usually provide data about profit, return on investment, return on sales, change in purchase prices and productivity (Ghalayini et al., 1997), however they suppor no data about quality, customer satisfaction, consumer loyalty ect. The common down falls of performance measurement systems are;

1- Short term and financial; Most of the performance measurement systems use financial reporting which are periodicals, and mostly on-year, which leads the firm to exchange long term profits for short term financial goals. Managers efforts to achieve short term goals may cause the firm to miss long term goals. Meanwhile, financial reporting does not give any usefull information about the future, they state what has already done. Financial reports are the result, not the cause, thus, they donot provide required data that how should performance be improved.

2- Inconquent measures; It is important for a firm to achieve its long term strategy, thus the performance measures that may help the firm to achive it's strategical goals is important. Performance measurement system should provide the data whether the strategical golas achieved or not, or to help the firm to determine what shoul be done to achive the strategy. The firm's performance measures and the firm strategy should be conqruent. If the performance measurement criteria are not derived from firm's long term strategied, performance measures may not help the firm to plan and control its strategy.

3- Internal Focus and Local Optimization; Production facilities are organized under departments, and most of the performance measurement systems aim to capture the performance of every individual unit which called local optimization, ignoring the performance of other departments. Local optimization of departments may not lead to overall performance which is the aim of the all performance measurement systems.

4- Lack of Continuous Development Focus; Performance measurement systems usually aim to capture the variance in the performance measures (like, the difference in ROI compared to previous year). As the goal of the managers is to minimize the variance and fluctuation in the measures, numerous performance measurement systems lack to support for future planning diminishing the development of the firm.

5- Incongruent Measures; Measures used in performance measurement systems tend to increase in numbers, very year new measures are added but no measure is removed from the list. Using old and new measures together may lead to incongruency because an increase in one measure may require a decrease in another measure, thus, it may be impossible to determine the trend in performance. Another problem is the incongruent measures associated with performance. Performance measures should be revised according to the developments in business.

6- Digitizing Problem; In performance measurement systems both quantitative and qualitative measures are used together to determine the overall performance. In another words tangible and intangible measures are used together to calculate a performance index. The problem arises in the weights of the measures, furthermore, digitizing of intangible measures still remains as a problem.

Although literature suggests various performance measurement systems in supply chain management, it is obvious that the systems offered are not sufficient enough to meet the complex and changing nature of the businesses, a network of decision makers does make it much more challenging. A successful network should be fast, innovative, offers high quality, flexible, responsive to customer and integrated with each other, thus, performance measures sufficient enough to capture these features should be determined. Some authors suggest using intangible measures over tangible (financial) measures claiming that intangible measures are the cause and tangible measures are the result (R. S. Kaplan, 1986). The idea is that customer satisfaction, quality, customer loyalty etc may lead to financial measures like profitability, ROI or income, however [not the other way round](#).

There is no consensus on the measurement of performance in a supply chain context (Chan, 2003; Chen & Paulraj, 2004; Flynn, Wu, & Melnyk, 2010). Some authors researched why some supply chains perform better than their competitor and suggested independent variables as an explanation (Gunasekaran, Patel, & Tirtiroglu, 2001), whereas some authors measured the performance of a supply chain.

Literature supports evidence for 10 performance measures used in supply chain management:

1- Traditional measures; are mostly rely on accounting data and they are financial in nature. They are efficiency, productivity, responsive time, stock levels etc measures. Traditional measures do not measure the overall network performance but local optimization.

2- Flexibility; is the adaptation ability of a company's operations and links with its suppliers to the variable nature of business' demands (Elwan Ibrahim & Ogunyemi, 2012; Lummus, Vokurka, & Duclos, 2005). Flexibility requires new product development, delivery time, delivery volume/quantity and delivery mix responsiveness.

3- Integration; is the degree of consolidation with the companies in the network (suppliers, customers and other intermediaries) and within the company (Stock, Greis, & Kasarda, 1998). Integration level is researched under three dimension; integration with the customer, integration with the supplier and integration within the (Gimenez, van der Vaart, & van Donk, 2012).

4- Responsiveness to customer demands is the speed of answering customer demands (Narasimhan & Jayaram, 1998). Responsiveness to customer demands is often used as an independent variable in performance measurement of supply chain management (Christy & Grout, 1994; Deshpande, 2012; Kiefer & Novack, 1999; H. L. Lee & Billington, 1992; Spekman, Kamauff Jr, & Myhr, 1998; Stevens, 1990). Effectiveness is not a well defined measure; however, it is widely used in many researches with the required definition of the study conducted. In a supply chain management context, effectiveness can be defined as the cost advantage over competing network (Bagchi, Chun Ha, Skjoett-Larsen, & Boege Soerensen, 2005). In order to lower the total cost, companies in the network may share information, joint product development, joint logistics or give decisions together, increasing the overall effectiveness of the network (Cao & Zhang, 2011).

5- Quality is one of the most difficult concepts in literature to define. In supply chain management, quality is the ability of a network to offer high value for the end consumer (S. H. Li & Lin, 2006) and it is common measure used in performance measurement systems (Behrouzi & Wong, 2011; Manrodt, Abott, & Visatek, 2005; Naylor, Naim, & Berry, 1999).

6- Innovativeness is the ability to offer new technologies and products to customers that adds value, different than available (Chitakornkijasil, 2012). Innovativeness is an indicator of a company's power as well as its ability to respond to the changing and evolving market demands and it is a prerequisite for higher profit margin (Tung, 2012).

7- Market performance, is a financial measure and mostly uses increase in sales volume, return on assets, new market development and new product development (Deshpande, 2012). Supply chain management supports market performance reducing costs, increasing income and reducing defects during transportation (Shin, Collier, & Wilson, 2000).

8- Relationship measures are the nonfinancial measures that accounting data can not capture. Although they can not be recognized by the accounting records, in the long run they affect performance (Beamon, 1999; D. Li & O'Brien, 1999; Neely, Gregory, & Platts, 1995; Van Der Vorst, 2006). However, the relationships between the companies in a network is abstract in nature, and it is difficult to measure its effect on performance.

9- Partnership quality; is the satisfaction of business partners' expectation from each other, it is a degree of partners matching expectations (J.-N. Lee & Kim, 1999). High quality partnership positively affected from mutual trust, common problem solving and keeping promises and negatively affected from long and detailed agreements and compulsory items. A quality partnership is supposed to lower costs by responding to changes rapidly, finding better solutions for problems and reducing costs which will result in overall reduced costs (Srinivasan, Mukherjee, & Gaur, 2011).

10- Supplier performance; is a measure of delivery of the required raw materials and its components just in time and with no defect. Authors stated that supplier performance can be achieved with delivery speed and high quality service, (Johnston, McCutcheon, Stuart, & Kerwood, 2004).

In this study, performance measurement in supply chain management is researched using a survey variables available in the literature. Defining the variables affecting performance of supply chain is supposed to enlighten the future studies. Previous studies mostly used financial measures like cost, delivery time, response time, productivity variables, quantitative in nature than qualitative (Gorane & Singh, 2012). Research focuses on perceived performance in order to determine the measures that could not be captured by accounting records/books. Nonfinancial measures are especially useful when it comes to achieve strategic goals of a company. Most of the measurement systems developed tend to monitor and control the supply chain, not achieving strategies in the long run (Amaratunga, Baldry, & Sarshar, 2001).

## 5. Method

An adapted version of survey is used in the study (Gawankar et al., 2016) composed of 39 Likert type questions (1=Strongly Disagree, 5=Strongly Agree), and 5 demographics about the participant and the firm he/she is employed. The questionnaire in the study captures supply chain flexibility, supply chain integration, responsiveness to customers, supplier performance and partnership quality.

Survey took place in Konya Organized Industrial Zone, with face to face interview by educated pollster. A total of 109 companies participated in the study, 2 of the questionnaires are removed because of missing data remaining 107 questionnaires.

### 5.1. Reliability and Validity Tests

For reliability Cronbach's Alpha Coefficient is calculated (Table 1). Supplier performance dimension item no 6 (Our supplier base has reduced over the past three years) is removed as it lowers Cronbach's alpha. Measures used are validated by Gawankar et al. (2016). Arithmetic total of all the items in a dimension are calculated and correlations with the item scores and dimension scores are compared. Correlations between theoretically similar measures are found to be high while correlations between theoretically

dissimilar measures are low, suggesting convergent and discriminant validity. Although Supply Chain Supplier Performance dimension item no1 correlates high both with Supply Chain Supplier Performance dimension ( $r, 0,725$ ) and Supply Chain Partner Quality dimension ( $r, 0,747$ ) literature supports evidence for the item to be associated with the supplier performance measure (Gawankar et al., 2016).

**Table 1:** Cronbach's Alpha Quaficients for Reliability Test

Dimension	Number of Items	Cronbach's Alpha
Overall	38	0,968
SC_Flexibility*	5	0,835
SC_Intergration*	5	0,865
SC_Responsiveness*	3	0,846
SC_SupPer*	5	0,857
SC_ParQua*	20	0,931

\*SC\_Flexibility, Supply Chain Flexibility; SC\_Intergration, Supply Chain Integration; SC\_Responsiveness, Supply Chain Responsiveness; SC\_SupPer, Supply Chain Supplier Performance; SC\_ParQua, Supply Chain Partner Quality

## 5.2. Findings

The aim of the study is reveal relationship between the performance measures used in supply chain management literature. Thus, correlation analysis and regression analysis are conducted to research the constructs. Aritmetic total of item scores are summed up and aritmetic mean is calculated for every each construct to obtain an index value for the dimensions, realtionship tests are performed using index values. Pearson correlations are calculated to research the relationships between dimensions (Table 2).

**Table 2:** Correlation among performance measures

	SC_Flexibility	SC_Integration	SC_Responsiveness	SC_SupPer
SC_Integration	,825**			
SC_Responsiveness	,660**	,772**		
SC_SupPer	,714**	,820**	,680**	
SC_ParQua	,773**	,856**	,777**	,801**

\*\* Correlation is significant at the 0.01 level (2-tailed).

Pearson correlation analysis reveal statiscally significant relationships between nonfinancial supply chain performance measures used in the literature. According to the correlation analysis, supply chain integration and supply chain partner quality are correlated highest ( $r, 0,856$ ;  $p<0,01$ ), followed by supply chain integration and supply chain flexibility ( $r, 0,825$ ;  $p<0,01$ ) and supply chain integration and supply chain supplier performance ( $r, 0,820$ ;  $p<0,01$ ). Although statistically significant, lowest correlation are between supply chain responsiveness and supply chain flexibility ( $r, 0,660$ ;  $p<0,01$ ), supply chain responsiveness and supply chain supplier performance ( $r, 0,680$ ;  $p<0,01$ ).

To further research the relationship between constructs, a regression analysis is conducted. Supply chain supplier performance is considered as the dependent variable and supply chain flexibility, supply chain integration, supply chain responsiveness and supply chain parner quality as independent variables, enter method is used as default.

Regression analysis reveal a statistically significant model ( $p<0,001$ ) (Table4), with high  $R^2$  ( $0,733$ ) (Table 3). Although the model is significant and determination coefficient is high that the model explains and predicts outcome well, not all the varibles are statistically significant (Table 5). Regression equation suggests that Supply Chain Supplier Performance is positively affected by Supply Chain Integration ( $B, 0.454$ ;  $t<0,001$ ) and Supply Chain Partner Quality ( $B, 0,365$ ;  $p<0,05$ ). Supply Chain

Flexibility and Supply Chain Responsiveness has no statistically significant effect on Supply Chain Supplier Performance.

**Table 3: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,856 <sup>a</sup>	,733	,722	,32198

SC\_Sup\_Per dependent; SC Flexibility, SC Integration, SC Responsiveness, SC\_ParQua independent variables

**Table 4: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	25,393	4	6,348	61,236	,000 <sup>b</sup>
	Residual	9,227	89	,104		
	Total	34,620	93			

**Table 5: Coefficients**

Model		Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	
1	(Constant)	,847	,241		,001
	SC Flexibility	,013	,087	,015	,880
	SC Integration	,454	,106	,550	,000
	SC Responsiveness	-,023	,076	-,028	,764
	SC_ParQua	,365	,122	,347	,004

SC\_Sup\_Per= (0,013) SC Flexibility + (0,454) SC Integration + (-0,023) SC Responsiveness+ (0,365) SC\_ParQua + 0,847

0,880                      0,000                      0,764                      0,04

## 6. Discussion and Conclusion

The study aims to contribute to literature on supply chain management by researching the relationships between nonfinancial performance measures. As it is important for the academicians and professionals to determine what measures to use for performance measurement in supply chain management, the paper enlightens future researches by stating the relationships between nonfinancial variables. The paper also tests the reliability and validity of the measures within Turkish context. The measures and items used in the study can be used by researchers for further supply chain management studies in Turkey.

Relationships stated in the study can be of use managers for business decisions and competitive advantage. As financial measures mostly capture previous year's performance, especially for strategical purposes, nonfinancial measures should be used for evaluating strategical goals achievement.

Nonfinancial measures are prerequisite for financial measures, in the long run, achievement of nonfinancial measures may lead to outcomes like competitive advantage, organizational performance and higher profits.

Supply chains are a business network, and their complex nature makes it difficult to determine a one unique measure for overall performance. The study captures supply chain flexibility, supply chain integration, responsiveness to customers, supplier performance and partnership quality, demonstrating the multidimensional nature of the supply chain management. Still, most of the companies do not understand the supply chain management concept, and they take it as a logistics. The study gives insight for the professionals about supply chain management and performance measurement issues related. Understanding what supply chain management is an important part of managing it, and to manage a supply chain measuring performance is required. Although, measures used in the study are supposed to help professionals in evaluating their current supply chain performance, understanding the nature of performance measurement in a supply chain is more rewarding.

Professionals can use the measures used in the study to identify their supply chains and direct for future strategical goals. In the long run nonfinancial measures are better determinants of performance than financial measures. A company can use the measures used in the study for future direction.

## 8. References

- Amaratunga, D., Baldry, D., & Sarshar, M. (2001). Process improvement through performance measurement: the balanced scorecard methodology. *Work study*, 50(5), 179-189.
- Ayers, J. B. (2006). *Handbook of supply chain management*: CRC Press.
- Bagchi, P. K., Chun Ha, B., Skjoett-Larsen, T., & Boege Soerensen, L. (2005). Supply chain integration: a European survey. *The international journal of logistics management*, 16(2), 275-294.
- Beamon, B. M. (1998). Supply chain design and analysis: Models and methods. *International journal of production economics*, 55(3), 281-294. doi:Doi 10.1016/S0925-5273(98)00079-6
- Beamon, B. M. (1999). Measuring supply chain performance. *International Journal of Operations & Production Management*, 19(3-4), 275-292. doi:Doi 10.1108/01443579910249714
- Behrouzi, F., & Wong, K. Y. (2011). An investigation and identification of lean supply chain performance measures in the automotive SMEs. *Scientific research and essays*, 6(24), 5239-5252.
- Bhasin, S. (2008). Lean and performance measurement. *Journal of Manufacturing Technology Management*, 19(5), 670-684.
- Cao, M., & Zhang, Q. Y. (2011). Supply chain collaboration: Impact on collaborative advantage and firm performance. *Journal of operations management*, 29(3), 163-180. doi:10.1016/j.jom.2010.12.008
- Chan, F. T. S. (2003). Performance measurement in a supply chain. *International Journal of Advanced Manufacturing Technology*, 21(7), 534-548. doi:DOI 10.1007/s001700300063
- Chen, I. J., & Paulraj, A. (2004). Understanding supply chain management: critical research and a theoretical framework. *International Journal of Production Research*, 42(1), 131-163. doi:10.1080/00207540310001602865
- Chitakornkijasil, P. (2012). Business performing social responsibility activities and corporate social responsibility issues. *International Journal of Organizational Innovation (Online)*, 5(1), 309.
- Chow, D., & Heaver, T. (1999). Logistics strategies for north america. *Global Logistics and Distribution Planning: Strategies for Management*, 3rd ed., Kogan Page, London, 359-374.
- Christopher, M. (1998). Logistics and supply chain management: strategies for reducing cost and improving service. London. *Financial Times Pitman Publishing*.
- Christy, D. P., & Grout, J. R. (1994). Safeguarding Supply Chain Relationships. *International journal of production economics*, 36(3), 233-242. doi:Doi 10.1016/0925-5273(94)00024-7
- Cirtita, H., & Glaser-Segura, D. A. (2012). Measuring downstream supply chain performance. *Journal of Manufacturing Technology Management*, 23(3), 299-314.
- Cross, K. F., & Lynch, R. L. (1988). The "SMART" way to define and sustain success. *Global Business and Organizational Excellence*, 8(1), 23-33.

- Das, L. (1994). Performance-Measurement Takes Center Stage at Johnson-Space-Center. *Industrial Engineering*, 26(3), 24-&.
- Deshpande, A. R. (2012). Supply chain management dimensions, supply chain performance and organizational performance: An integrated framework. *International Journal of Business and Management*, 7(8), 2.
- Dixon, J. R., Nanni, A. J., & Vollmann, T. E. (1990). The new performance challenge. *Business One Irwin, Burr Ridge, IL*.
- Dwayne Whitten, G., Green Jr, K. W., & Zelbst, P. J. (2012). Triple-A supply chain performance. *International Journal of Operations & Production Management*, 32(1), 28-48.
- Elwan Ibrahim, S., & Ogunyemi, O. (2012). The effect of linkages and information sharing on supply chain and export performance: An empirical study of Egyptian textile manufacturers. *Journal of Manufacturing Technology Management*, 23(4), 441-463.
- Flynn, B. B., Wu, S. J., & Melnyk, S. (2010). Operational capabilities: Hidden in plain view. *Business Horizons*, 53(3), 247-256. doi:10.1016/j.bushor.2010.01.001
- Ganeshan, R., & Harrison, T. P. (1995). An introduction to supply chain management. *Department of Management Science and Information Systems, Penn State University*, 2-7.
- Gawankar, S., Kamble, S., & Raut, R. (2016). Development, measurement and validation of supply chain performance measurement (SCPM) scale in Indian retail sector. *Benchmarking-an International Journal*, 23(1), 25-60. doi:10.1108/Bij-06-2013-0068
- Ghalayini, A. M., Noble, J. S., & Crowe, T. J. (1997). An integrated dynamic performance measurement system for improving manufacturing competitiveness. *International journal of production economics*, 48(3), 207-225. doi:Doi 10.1016/S0925-5273(96)00093-X
- Gimenez, C., van der Vaart, T., & van Donk, D. P. (2012). Supply chain integration and performance: the moderating effect of supply complexity. *International Journal of Operations & Production Management*, 32(5-6), 583-610. doi:10.1108/01443571211226506
- Gorane, S., & Singh, M. (2012). *Functional benchmarking of organisations on the basis of supply chain performance measures*. Paper presented at the Management of Innovation and Technology (ICMIT), 2012 IEEE International Conference on.
- Grant, D., Lambert, D., Stock, J., & Ellram, L. (2006). *Fundamentals of Logistics*: McGrawHill, New York (NY).
- Gunasekaran, A., Patel, C., & Tirtiroglu, E. (2001). Performance measures and metrics in a supply chain environment. *International Journal of Operations & Production Management*, 21(1-2), 71-87. doi:Doi 10.1108/01443570110358468
- Janvier-James, A. M. (2012). A new introduction to supply chains and supply chain management: Definitions and theories perspective. *International Business Research*, 5(1), 194.
- Johnston, D. A., McCutcheon, D. M., Stuart, F. I., & Kerwood, H. (2004). Effects of supplier trust on performance of cooperative supplier relationships. *Journal of operations management*, 22(1), 23-38.
- Kaplan, R., & Norton, D. P. (1996). *The Balanced Scorecard* Harvard Business School Press. Boston, MA.
- Kaplan, R. S. (1986). *Must CIM be justified by faith alone?* : Graduate School of Business Administration, Harvard University Boston.
- Kaplan, R. S., & Norton, D. P. (2005). *The balanced scorecard: measures that drive performance*: Harvard Business School Publishing.
- Kiefer, A. W., & Novack, R. A. (1999). An empirical analysis of warehouse measurement systems in the context of supply chain implementation. *Transportation Journal*, 38(3), 18-27.
- Kueng, P. (2000). Process performance measurement system: a tool to support process-based organizations. *Total Quality Management*, 11(1), 67-85. doi:Doi 10.1080/0954412007035
- Langley, C. J. (2008). *Managing Supply Chains: A Logistics Approach with Student CD*: Cengage learning.
- Lee, H. L., & Billington, C. (1992). Managing Supply Chain Inventory - Pitfalls and Opportunities. *Sloan management review*, 33(3), 65-73.



- Lee, H. L., & Billington, C. (1995). The Evolution of Supply-Chain-Management Models and Practice at Hewlett-Packard. *Interfaces*, 25(5), 42-63. doi:DOI 10.1287/inte.25.5.42
- Lee, J.-N., & Kim, Y.-G. (1999). Effect of partnership quality on IS outsourcing success: conceptual framework and empirical validation. *Journal of Management information systems*, 15(4), 29-61.
- Li, D., & O'Brien, C. (1999). Integrated decision modelling of supply chain efficiency. *International journal of production economics*, 59(1-3), 147-157. doi:Doi 10.1016/S0925-5273(98)00097-8
- Li, S. H., & Lin, B. S. (2006). Accessing information sharing and information quality in supply chain management. *Decision support systems*, 42(3), 1641-1656. doi:10.1016/j.dss.2006.02.011
- Little, A. (1999). A European Supply Chain (SC) survey.
- Lummus, R. R., Vokurka, R. J., & Duclos, L. K. (2005). Delphi study on supply chain flexibility. *International Journal of Production Research*, 43(13), 2687-2708. doi:10.1080/00207540500056102
- Manrodt, K., Abott, J., & Visatek, K. (2005). understanding the lean supply chain: Beginning the journey 2005 report on lean practices in the supply chain. *APICS, Georgia Southern University, Oracle and Supply Chain Visions*.
- Mentzer, J. T., DeWitt, W., Keebler, J. S., Min, S., Nix, N. W., Smith, C. D., & Zacharia, Z. G. (2001). Defining supply chain management. *Journal of Business logistics*, 22(2), 1-25.
- Narasimhan, R., & Jayaram, J. (1998). Causal linkages in supply chain management: An exploratory study of North American manufacturing firms. *Decision sciences*, 29(3), 579-605. doi:DOI 10.1111/j.1540-5915.1998.tb01355.x
- Naylor, J. B., Naim, M. M., & Berry, D. (1999). Leagility: Integrating the lean and agile manufacturing paradigms in the total supply chain. *International journal of production economics*, 62(1-2), 107-118.
- Neely, A., Gregory, M., & Platts, K. (1995). Performance measurement system design - A literature review and research agenda. *International Journal of Operations & Production Management*, 15(4), 80-116. doi:Doi 10.1108/01443579510083622
- Pienaar, W. J., & Vogt, J. J. (2009). *Business logistics management: a supply chain perspective*: Oxford University Press Southern Africa.
- Pursell, R. B. (1980). Administering Divisional Incentive Compensation. *Compensation Review*, 12(1), 15-20. doi:Doi 10.1177/088636878001200102
- Risch, E. H. (1987). *Retail Merchandising: Concepts, Dynamics, and Applications*: Merrill Publishing Company.
- Shin, H., Collier, D. A., & Wilson, D. D. (2000). Supply management orientation and supplier/buyer performance. *Journal of operations management*, 18(3), 317-333. doi:Doi 10.1016/S0272-6963(99)00031-5
- Spekman, R. E., Kamauff Jr, J. W., & Myhr, N. (1998). An empirical investigation into supply chain management: a perspective on partnerships. *Supply Chain Management: An International Journal*, 3(2), 53-67.
- Srinivasan, M., Mukherjee, D., & Gaur, A. S. (2011). Buyer-supplier partnership quality and supply chain performance: Moderating role of risks, and environmental uncertainty. *European Management Journal*, 29(4), 260-271. doi:10.1016/j.emj.2011.02.004
- Stevens, G. C. (1990). Successful supply-chain management. *Management Decision*, 28(8).
- Stock, G. N., Greis, N. P., & Kasarda, J. D. (1998). Logistics, strategy and structure - A conceptual framework. *International Journal of Operations & Production Management*, 18(1-2), 37-+. doi:Doi 10.1108/01443579810192772
- Trkman, P., Stemberger, M. I., & Jaklic, J. (2005). Information Transfer in Supply Chain Management. *Issues in Informing Science & Information Technology*, 2.
- Tung, J. (2012). A study of product innovation on firm performance. *International Journal of Organizational Innovation (Online)*, 4(3), 84.
- Van Der Vorst, J. G. (2006). Performance measurement in agri-food supply-chain networks. *Quantifying the agri-food supply chain*, 15-26.
- Vitale, M., Mavrinac, S. C., & Hauser, M. (1994). New process/financial scorecard: a strategic performance measurement system. *Strategy & Leadership*, 22(4), 12.

Waggoner, D. B., Neely, A. D., & Kennerley, M. P. (1999). The forces that shape organisational performance measurement systems: An interdisciplinary review. *International journal of production economics*, 60-1, 53-60. doi:Doi 10.1016/S0925-5273(98)00201-1

Zhou, G. (2011). *Research on the Supporting Role of Information Integration to Supply Chain Management in Large Retail Enterprises*. Paper presented at the Computer and Management (CAMAN), 2011 International Conference on.



# Future Prospects on Maintenance Through Industry 4.0 Transformation

Fatma Demircan Keskin, İnanc Kabasakal

## 1. Introduction

Industry 4.0 is regarded as a disruptive transformation in manufacturing and business processes. In this transformation, recent rapid developments of information and internet technologies, especially cyber-physical systems (CPS) and the internet of things (IoT), and advanced analytic tools that enable creating value from big data have had major roles. Industry 4.0 creates a manufacturing environment in which machines, physical objects, information, and people are integrated. Manufacturing systems have undergone a number of revolutionary changes since the beginning of the industrialization. Today's manufacturing system is called as "Predictive Manufacturing Systems" where the technological developments and capabilities underlying Industry 4.0 are reflected in the manufacturing environment (Nikolic et al., 2017, p. 796).

Predictive Manufacturing Systems aim at achieving transparency in the plant by predicting the uncertainties and invisible problems in processes, equipment, and systems through the use of advanced analytic techniques (Lee et al., 2013, p. 151).

Industry 4.0 transforms manufacturing systems into intelligent, interconnected production systems, with a focus on the installation of intelligent products and manufacturing processes (Brettel et al., 2014; Niesen et al., 2016). Within this manufacturing environment, the role of maintenance has changed, and maintenance has become a value-creating process that facilitates the smooth run of machines and processes.

The fundamental components and technologies of Industry 4.0, especially CPS, IoT, big data analytics, support essential maintenance activities such as health- monitoring, diagnosing, finding root causes of failures and offer possibilities for maintenance. This study aims to provide a review of these possibilities for maintenance and discuss its future prospects. For this purpose, the study will begin with an introduction of the historical evolution of maintenance strategies. Afterwards, opportunities offered by Industry 4.0 for maintenance will be summarized. Finally, discussions about the future prospects for maintenance will be presented.

## 2. Evolution of Maintenance Approaches

The perception of the maintenance function has changed significantly in recent years. Traditionally the maintenance function is perceived as a reactive process in which broken items are repaired. This approach is referred to as reactive maintenance, corrective maintenance or breakdown maintenance (Ahuja and Khamba, 2008, p. 712).

In the literature, there have been studies classifying the evolution of maintenance strategies over the years into different stages. Kothamasu et al. (2006) have categorized maintenance approaches into two main categories as reactive and proactive maintenance, based on whether they are planned or not. They have considered the corrective maintenance as a type of reactive maintenance. In their classification, preventive and predictive maintenance have fallen into the category of proactive maintenance. Condition Based Maintenance and Reliability Centered Maintenance have been included under predictive maintenance.

Jain et al. (2014) have categorized the development of maintenance concepts as breakdown, preventive, predictive, corrective, Total productive maintenance, maintenance prevention, productive maintenance, reliability-centered maintenance and computerized maintenance management systems.

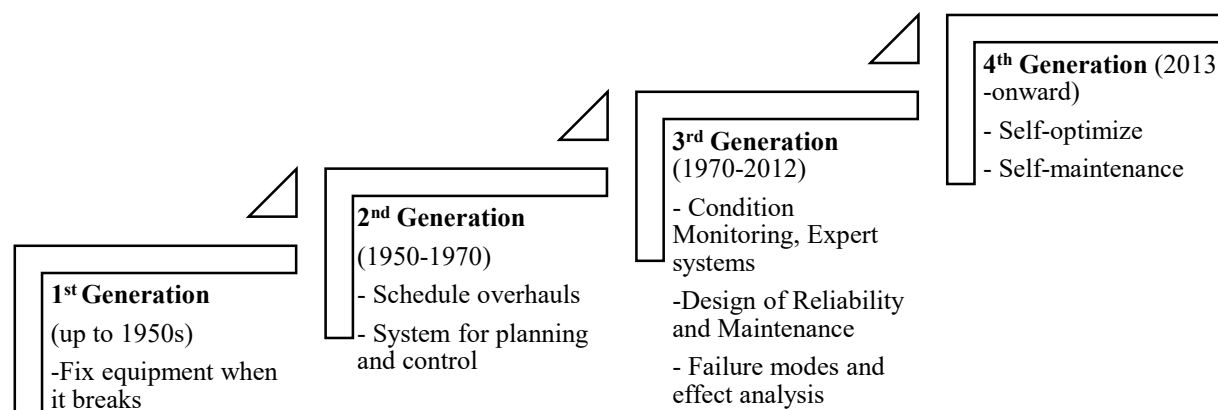
O'Donovan et al. (2015) have considered common industrial maintenance strategies as reactive, corrective, preventive and predictive. Jin et al. (2016) have reviewed maintenance strategies under reactive, preventive, predictive and proactive maintenance strategies.

The descriptions of maintenance strategies classified differently in the literature are briefly presented below.

- **Reactive maintenance** is a maintenance strategy in which equipment is repaired when it breaks. It reacts to emergencies when they occur (Gallimore and Penlesky, 1988, 16).
- **Corrective maintenance** is a maintenance strategy in which maintenance is performed after a breakdown or when there is an apparent fault (Niu et al., 2010, p. 786).
- **Proactive maintenance** is a maintenance strategy aiming to avoid breakdowns by monitoring equipment deterioration and making minor repairs to bring the equipment to the appropriate condition (Swanson, 2001, p. 238).
- **Preventive and predictive maintenance** activities are performed in the proactive maintenance strategy. In **preventive maintenance**, maintenance activities are performed at intervals determined by using reliability theory or examining historical data from machines. **Predictive maintenance** is triggered by an out-of-range monitoring device reading (Paz and Leigh, 1994, p. 49).
- **Reliability Centered Maintenance** is a process that focuses on identifying and creating operational, maintenance and capital development policies. It is used to determine what needs to be done to ensure that physical entities continue to do what their users want them to do in their current operational context (Moubray, 1997, p. 7; Niu et al., 2010, p. 788).
- **Condition-based maintenance** is a strategy that aims to avoid unnecessary maintenance activities and suggests that maintenance activities should be carried out when there is evidence of the abnormal behavior of a physical entity identified in the collected information through condition monitoring (Jardine et al., 2006, p. 1484).
- **Total Productive Maintenance**, is a comprehensive approach involving employees from the production and maintenance personnel up to the top management, aims to maximize the effectiveness of the equipment throughout the entire life cycle (Jain et al., 2014, p. 298; McKone et al., 1999, p. 123).
- **Computerized maintenance management systems**, are systems for management of information on maintenance activities, workforce, schedules, historical data of machines. The use of these systems also eases the management of spare parts and other resources related to maintenance (Swanson, 1997, p.195).

Singh et al. (2014) have presented the changes of maintenance generations starting from the 1940s (Figure 1). The first two generations expressed in Figure 1 refer to reactive and preventative maintenance strategies, respectively. In the third generation of maintenance, condition monitoring, design for reliability and maintenance, failure modes and effect analysis and expert systems have been used in the maintenance process. Condition-based maintenance, predictive maintenance and reliability-based maintenance strategies can be considered as the most compatible maintenance strategies with the characteristics of this maintenance generation.

The fourth generation of maintenance is the period that reflects the effects of Industry 4.0 on maintenance. With technologies such as IoT, CPS, which form the basis of Industry 4.0, it has become possible to plan maintenance based upon the big volume of data collected in real time, to better understand the health status of products, to make better diagnosis and improve the maintenance of equipment (Roy et al., 2016, p. 668).



**Figure 1:** Four generations of maintenance  
Singh et al., 2014, p. 76

Prognostics and health management (PHM) is a discipline based on a set of technologies, that is used to assess systems health status, determine causes of failures, predict deterioration trends in assets and their remaining useful performance in life cycles, and support optimal maintenance decisions to eliminate the source of failure before the occurrence of problems (Kwon et al., 2016, p. 3659; Jin et al., 2016, p.4-5). The use of PHM in manufacturing has accelerated as manufacturing systems begin to evolve into predictive manufacturing systems. In recent years, studies in the field of maintenance have revealed that PHM is a key research area that is frequently studied (see Lee et al., 2013; Pellegrino et al., 2016; Jin et al., 2016; Vogl et al., 2016; Roy et al., 2016).

### 3. Opportunities for Maintenance within Industry 4.0 Transformation

The progress on digital technologies has offered a great potential to improve processes in operations and production management. Originally, Industry 4.0 was presented and described as a disruptive transformation in manufacturing processes. Besides, it can be argued that the Industry 4.0 transformation paves the way for rewarding progress in other processes related to manufacturing. In a report by McKinsey Digital (2015: p.19), Industry 4.0 is related to the effect of digitalization in manufacturing as follows:

*“This digital optimization builds on an end-to-end information flow – in short: a “digital thread” running through the entire product lifecycle as its digital representation. This digital thread starts with the digital design of the product, passes on through the digitally steered and controlled manufacturing process, leads to the digital monitoring of the end product in operation (e.g., for maintenance purposes), and finally ends in the recycling of the product”.*

In such perspective, digital technologies are the essential elements to transform manufacturing processes. Moreover, the operations are monitored throughout the whole process. In such setting, the digital infrastructure to monitor production processes and products might also help to track the health status of machines and other equipment in the facility as well. In a report by Deloitte (2017), predictive maintenance is described as the most efficient maintenance strategy currently available, that will most benefit from emerging technological transformation.

Industry 4.0 vision involves automated production systems that have the capability to operate dynamically, with use of contextual data. Jazdi (2014, p.1) described CPS as the embedded systems that can send and receive data over a network, which usually involve microcontrollers that control sensors and actuators to interact with the physical world. Lee et al. (2015) argued that the CPS possess the ability to infer useful information from data, and specialized algorithms enable prognosis and health management of “self-aware” systems. Moreover, Baheti and Gill (2011) argued that with the pervasion

of CPS, future engineering systems will involve further autonomy, functionality, and reliability. In this regard, CPS is expected to support various tasks related to health-monitoring and maintenance in production systems.

Self-awareness of a system requires monitoring and processing real-time contextual data to obtain useful information in decisions. Intuitively, advanced data analytic methods, including data mining is required to process sensor data to build capabilities that stand for self-awareness. Moreover, predictive health monitoring in the Industry 4.0 context also corresponds further to concepts such as self-prediction, self-configuration, self-adaptation, self-organization, and self-maintenance capabilities (Lee et al., 2015).

Harding et al. (2006) underlined the importance of data mining within the context of preventive maintenance, argued that further data collection process is not required for data mining since manufacturing provides the opportunity for real-time data collection. Moreover, data analysis and software is utilized in specialized, “smart” products during the product lifetime as well. Vogel-Heuser et al. (2015) focused on the maintenance of “automated” products, and, and argued that the role of software in automated products depends on the product lifetime and the level of automation. In this regard, the scope of maintenance is extended beyond the manufacturing process; the automated products having a long lifetime were covered as one of the fundamental subjects in the context of manufacturing. Kans and Galar (2017) also argued the importance of data mining in maintenance. Accordingly, data mining can be utilized to discover useful patterns and relations in data and helps to locate the root causes of failures in Maintenance Decision Support Systems.

Fumagalli and Macchi (2015) remunerated Service Oriented Architecture (SOA), a paradigm that credits individual components that provide discrete and remotely accessible functionality, as one of the technical mechanisms that facilitate distributed monitoring and controlling by allowing embedded solutions that interact with each other.

Mourtzis et al. (2016) proposed a model to capture shop-floor data for analysis to support condition-based maintenance. The model incorporates Cloud infrastructure for data processing and calculation of remaining operation time of machine tools. In such scenario, more complex analytical tasks are performed on the Cloud infrastructure, whereas the sensor network merely performs data collection tasks at the shop-floor.

Lee and Lapira (2011) underlined the importance of machine learning algorithms on embedded devices that help to predict the degradation of machine components and enable predictive techniques to assist smart TPM systems. As an example, an application to monitor torque for joints used in robotic systems, and raise alarms in case the measured torque exceeds the safe threshold in the study. However, the authors also remarked the tightness of the time window to perform the corrective action; and argued the necessity of real-time health assessment based on PHM would result in a better time window for intervention. Furthermore, Vesely (2017) noted that machine learning algorithms used for asset degradation detection help to reduce costs by avoiding both under investments in maintenance to prevent failures, and overinvestments in maintenance to reduce unnecessary operations.

Within the context of maintenance, Muller et al. (2008) underlined the crucial role of e-technologies (Bluetooth, Internet, PDA's, Sensor Technology, Signal Processing, etc.) to design new solutions that accomplish distributed & intelligent maintenance tasks. Within the Industry 4.0 context, such technologies are listed within a list of “enabling technologies for Industry 4.0” (Wan et al., 2015) that also involve 3D printing technology, CPS, Cloud Computing, Big Data, etc. Besides, Singh et al. (2014) discussed the emerging technologies (including nanosensors, controllers, smart algorithms) within the self-maintenance context; and noted the importance of such progress in the emergence of new maintenance concepts.

Penna et al. (2014) expressed the importance of sensor networks within the Intelligent Maintenance Systems (IMS) context, and identified the potential usage of CPS in maintenance to facilitate “sensing”.

Muller et al. (2008) argued the technological progress along with their potential improvements in maintenance strategies, and summarized those as the following:

- Remote maintenance

- Cooperative / Collaborative Maintenance
- Immediate / Online Maintenance
- Predictive Maintenance

As the studies covered so far suggests, new technologies provide new opportunities for maintenance as well as manufacturing. Furthermore, adoption of technologies related to Industry 4.0 and manufacturing facilities require further preparation in businesses. To assess the conformance level of enterprises to Industry 4.0, Schumacher et al. (2016) have offered a maturity model that involve various dimensions including customers, operations, products, technology.

#### 4. Discussion

As a trending and popular buzzword, “Industry 4.0” has attracted an intensive audience in communities in the academy and various industries. The term is mostly used as a disruptive, progressive wave of transformation and relates to visionary statements regarding the future. The technological infrastructure and competencies of Industry 4.0 enable predictive manufacturing systems that can predict the causes of problems and prevent them from appearing. Maintenance has become a critical process in these manufacturing systems. From this point of view, this study aims to examine changes in maintenance in the context of Industry 4.0.

Maintenance approaches have gone through some generations up to today. Self-maintenance and PHM concepts are prominent in the last generation that reflects the effects of Industry 4.0 on maintenance. Especially in recent years, PHM has been used intensively in manufacturing and it has an important role to achieve the abilities of predictive manufacturing systems.

Industry 4.0 influenced the way maintenance strategies are implemented, including all maintenance strategies, from reactive maintenance to predictive maintenance. Among the maintenance strategies, predictive, condition based maintenance and PHM applications are more compatible with the age of Industry 4.0 and more attention is given to these approaches in recent studies.

The prevalence of self-aware, automated systems is questionable in the manufacturing facilities for the present. However, it can be expected that the machinery used in manufacturing will be upgraded, enabling implementation of advanced maintenance strategies leveraging a higher level of automation & self-awareness. Consequently, it can be argued that the technical deficiencies that preclude new maintenance strategies will gradually degrade over time.

#### 5. References

- Ahuja, I. P. S., & Khamba, J. S. (2008). Total productive maintenance: literature review and directions. *International Journal of Quality & Reliability Management*, 25(7), 709-756.
- Baheti, R., & Gill, H. (2011). Cyber-physical systems. The impact of control technology, 12, 161-166.
- Brettel, M., Friederichsen, N., Keller, M., & Rosenberg, M. (2014). How virtualization, decentralization and network building change the manufacturing landscape: An Industry 4.0 Perspective. *International Journal of Mechanical, Industrial Science and Engineering*, 8(1), 37-44.
- Deloitte (2017). Making maintenance smarter - Predictive maintenance and the digital supply network. URL: [https://www2.deloitte.com/content/dam/insights/us/articles/3828\\_Making-maintenance-smarter/DUP\\_Making-maintenance-smarter.pdf](https://www2.deloitte.com/content/dam/insights/us/articles/3828_Making-maintenance-smarter/DUP_Making-maintenance-smarter.pdf), Date Accessed: 28.02.2018
- Fumagalli, L., & Macchi, M. (2015). Integrating maintenance within the production process through a flexible E-maintenance platform. *IFAC-PapersOnLine*, 48(3), 1457-1462.
- Gallimore, K. F., & Penlesky, R. J. (1988). A framework for developing maintenance strategies. *Production and Inventory Management Journal*, 29(1), 16.
- Harding, J. A., Shahbaz, M., & Kusiak, A. (2006). Data mining in manufacturing: a review. *Journal of Manufacturing Science and Engineering*, 128(4), 969-976.
- Jain, A., Bhatti, R., & Singh, H. (2014). Total productive maintenance (TPM) implementation practice: A literature review and directions. *International Journal of Lean Six Sigma*, 5(3), 293-323.



- Jardine, A. K., Lin, D., & Banjevic, D. (2006). A review on machinery diagnostics and prognostics implementing condition-based maintenance. *Mechanical systems and signal processing*, 20(7), 1483-1510.
- Jazdi, N. (2014, May). Cyber physical systems in the context of Industry 4.0. In Automation, Quality and Testing, Robotics, 2014 IEEE International Conference on (pp. 1-4). IEEE.
- Jin, X., Weiss, B. A., Siegel, D., & Lee, J. (2016). Present status and future growth of advanced maintenance technology and strategy in US manufacturing. *International journal of prognostics and health management*, 7(Spec Iss on Smart Manufacturing PHM).
- Kans, M., & Galar, D. (2017). The Impact of Maintenance 4.0 and Big Data Analytics within Strategic Asset Management. In 6th International Conference on Maintenance Performance Measurement and Management, 28 November 2016, Luleå, Sweden (pp. 96-103). Luleå University of Technology.
- Kothamasu, R., Huang, S. H., & VerDuin, W. H. (2006). System health monitoring and prognostics—a review of current paradigms and practices. *The International Journal of Advanced Manufacturing Technology*, 28(9-10), 1012-1024.
- Kwon, D., Hodkiewicz, M. R., Fan, J., Shibutani, T., & Pecht, M. G. (2016). IoT-based prognostics and systems health management for industrial applications. *IEEE Access*, 4, 3659-3670.
- Lee, J., Bagheri, B., & Kao, H. A. (2015). A cyber-physical systems architecture for industry 4.0-based manufacturing systems. *Manufacturing Letters*, 3, 18-23.
- Lee, J., & Lapira, E. (2011). TPM gets smart. *Manufacturing Engineering*, 146(6), 70-75.
- Lee, J., Lapira, E., Yang, S., & Kao, A. (2013). Predictive manufacturing system-Trends of next-generation production systems. *IFAC Proceedings Volumes*, 46(7), 150-156.
- McKinsey Digital (2015). Industry 4.0 - How to navigate digitization of the manufacturing sector. *McKinsey & Company*. URL: [https://www.mckinsey.de/files/mck\\_industry\\_40\\_report.pdf](https://www.mckinsey.de/files/mck_industry_40_report.pdf) Date Accessed: 28.02.2018
- McKone, K. E., Schroeder, R. G., & Cua, K. O. (1999). Total productive maintenance: a contextual view. *Journal of operations management*, 17(2), 123-144.
- Mourtzis, D., Vlachou, E., Milas, N., & Xanthopoulos, N. (2016). A cloud-based approach for maintenance of machine tools and equipment based on shop-floor monitoring. *Procedia CIRP*, 41, 655-660.
- Moubray, J. (1997). *Reliability-centered maintenance*. Industrial Press Inc..
- Muller, A., Marquez, A. C., & Iung, B. (2008). On the concept of e-maintenance: Review and current research. *Reliability Engineering & System Safety*, 93(8), 1165-1187.
- Niesen, T., Houy, C., Fettke, P., & Loos, P. (2016, January). Towards an integrative big data analysis framework for data-driven risk management in industry 4.0. In *System Sciences (HICSS), 2016 49th Hawaii International Conference on* (pp. 5065-5074). IEEE.
- Nikolic, B., Ignjatic, J., Suzic, N., Stevanov, B., & Rikalovic, A. (2017). PREDICTIVE MANUFACTURING SYSTEMS IN INDUSTRY 4.0: TRENDS, BENEFITS AND CHALLENGES. *Annals of DAAAM & Proceedings*, 28.
- Niu, G., Yang, B. S., & Pecht, M. (2010). Development of an optimized condition-based maintenance system by data fusion and reliability-centered maintenance. *Reliability Engineering & System Safety*, 95(7), 786-796.
- O'Donovan, P., Leahy, K., Bruton, K., & O'Sullivan, D. T. J. (2015). An industrial big data pipeline for data-driven analytics maintenance applications in large-scale smart manufacturing facilities. *Journal of Big Data*, 2(1), 25.
- Paz, N. M., & Leigh, W. (1994). Maintenance scheduling: issues, results and research needs. *International Journal of Operations & Production Management*, 14(8), 47-69.
- Pellegrino, J., Justiniano, M., Raghunathan, A., & Weiss, B. A. (2016). *Measurement Science Roadmap for Prognostics and Health Management for Smart Manufacturing Systems* (No. Advanced Manufacturing Series (NIST AMS)-100-2).

Penna, R., Amaral, M., Espíndola, D., Botelho, S., Duarte, N., Pereira, C. E., Zuccolotto, M., & Frazzon, E. M. (2014, July). Visualization tool for cyber-physical maintenance systems. In *Industrial Informatics (INDIN), 2014 12th IEEE International Conference on* (pp. 566-571). IEEE.

Roy, R., Stark, R., Tracht, K., Takata, S., & Mori, M. (2016). Continuous maintenance and the future—Foundations and technological challenges. *CIRP Annals*, 65(2), 667-688.

Schumacher, A., Erol, S., & Sihn, W. (2016). A maturity model for assessing industry 4.0 readiness and maturity of manufacturing enterprises. *Procedia CIRP*, 52, 161-166.

Singh, S., Galar, D., Baglee, D., & Björling, S. E. (2014). Self-maintenance techniques: a smart approach towards self-maintenance system. *International Journal of System Assurance Engineering and Management*, 5(1), 75-83.

Swanson, L. (1997). An empirical study of the relationship between production technology and maintenance management. *International Journal of Production Economics*, 53(2), 191-207.

Swanson, L. (2001). Linking maintenance strategies to performance. *International journal of production economics*, 70(3), 237-244.

Vesely, E. (2017). Consider Automated Machine Learning for Wind Turbine Asset Maintenance. *POWER*. Vol. 161(9), 16-17.

Vogel-Heuser, B., Fay, A., Schaefer, I., & Tichy, M. (2015). Evolution of software in automated production systems: Challenges and research directions. *Journal of Systems and Software*, 110, 54-84.

Vogl, G. W., Weiss, B. A., & Helu, M. (2016). A review of diagnostic and prognostic capabilities and best practices for manufacturing. *Journal of Intelligent Manufacturing*, 1-17.

Wan, J., Cai, H., & Zhou, K. (2015, January). Industrie 4.0: enabling technologies. In *Intelligent Computing and Internet of Things (ICIT), 2014 International Conference on* (pp. 135-140). IEEE.



# Evaluation Of A Student Information System (Sis) In Terms Of User Emotions, Performance And Perceived Usability: A Pilot Study

Denizhan Demirkol, Cagla Seneler

## 1. Introduction

*Student Information Systems (SIS)* are a type of Information Systems and it is also known as *Student Management Systems*, *School Administration Software* and *Student Administration Systems*. SIS have lots of functions such as providing record management of past, present and future students covering aspects of enquiry, application, enrolment, academic performance and history, allowing for billing and fees management, processing important events such as graduations and examinations, programming classes, reporting operational and management issues and feeding data into numerous other specialist systems (Mukerjee, 2012).

The work about of users' emotional behavior as an vital angle of the user experience has been getting expanding consideration for the past ten years and studying emotions and affect as part of the user experience is essential in order to measure emotional reactions. (Mahlke & Minge, 2008). Palen and Bødker (2008) stated that emotion is an important issue in Human-computer Interaction (HCI). User experience has three main typical features which are "user", "that user is interacting with a product, system, or really anything with an interface" and "the user's experience is of interest, and observable or measurable" (Tullis & Albert, 2013). It is extremely important to take the informative function of emotions into account when

designing HCI interfaces (Kim & Moon, 1998). According to Jordan (1998) creating usable products may not the same meaning as creating pleasurable products. As a result it is necessary to measure user emotions. Mahlke and Minge (2008) asserted that this can be performable through various ways such as heart rate and Electrodermal Activity (EDA), Electromyography (EMG) or pupil responses, the analysis of facial expressions captured by video, or various kinds of survey methods; questionnaires, interviews, etc.

ISO standard 9,241-11 Guidance on Usability (1998) defines *usability* as "the extent to which a product can be used by specified users to achieve specified goals with effectiveness, efficiency and satisfaction in a specified context of use". Nielsen (1993) stated that usability as one of the parameters associated with the acceptability of any system. Since systems are developed for users, usability focuses on understanding users. That's why, if developers desire to develop a useful system, the understanding of potential users is vital.

SIS have become trendy in the last decade and abundant educational institutions have been using SIS to manage their data. However, there are still few studies about the SIS's usability in the literature. Among barriers to SIS adoption is poor usability (Carcary, Long, & Remenyi, 2007). Usability of the SIS is important because thousands of people including for students, academicians and administrative personnel use SIS in order to conduct educational tasks.

Gemmell and Pagano (2003) studied user perceptions and overall attitude to effectiveness of a SIS in the Salford University. Data were collected from 84 users through a four-part questionnaire, mostly closed questions. The authors found that the users have experienced difficulties while they are using the system and they indicated that an assessment of the user skill base is required. Furthermore, they stated that users' skill base should be regarded when implementing new functionalities of a system. Another study is carried out in the University Malaysia Sabah.(Nordaliela, Suriani, & Nathaniel, 2013) Data was collected using Computer System Usability Questionnaire. The respondents in that study were 132 students of Computer Science program and two operation officers from Information Technology Department. Through factor analysis, four factors; useful information, timely access, interface

design, and error recovery were usability factors which received concerns from the users. Most importantly, they found that usability is critical factor for user satisfaction.

Effective SIS not only satisfies personals and students but also increase sustainability of academic workflow. In order to prevent user errors, maintain users' tasks and increase users' satisfaction towards to the system, usability study is essential for SIS. Usually SIS have been developing without usability analysis and user-centred design principles although these efforts should be carried out by developers. Formal usability testing of the SIS could help to improve the system and increase its beneficial effects on academic workflow. Nielsen (1993) stated that no usability test should be performed without first having tried out the test procedure on a few pilot subjects. To our knowledge, no comprehensive usability test of selected university's SIS had been previously done. Therefore, the main goal of this pilot experiment was before experimenting large student groups to identify possible problems. Furthermore, there is no scientific evidence on usability of any Turkish Universities' SIS in the literature. Thus, this study will help to fill this gap.

## **2. STUDY CONTEXT**

### **2.1. Organizational Setting**

Tested system was one of the foundation universities' SIS in Turkey. The university has over twenty thousand students. Furthermore, this SIS is only the system that is used by the university's students. Through this system, the students can get information about announcements about their departments, manage their personal datas, review their academic performance as well as course histories. The SIS provides also course enrollment and communication between students and their advisors. Tested system used by all departments' students as well as academics. In this study, user emotions, performance and perceived usability were investigated from students' perspectives.

### **2.2. Objective**

Firstly, participants were asked to perform a number of tasks on the tested system. After that, they were asked to answer Emotion Word Prompting List (EWPL) and System Usability Scale (SUS) to get their emotions and perceived usability about the system, respectively. These questionnaires were developed in English so that they were unsuitable for Turkish users. Therefore, they were translated into the Turkish language (with permission of the EWPL's and SUS' main authors; Professor Dr. Helen Petrie and Dr. John Brooke, respectively) by using professional techniques and reliability and validity studies of them were established to make them suitable for users from Turkey. Then, performance evaluation and demographic questionnaires were carried out. Quantitative and qualitative data were collected from only six students since the main goal of this pilot experiment was before experimenting large student groups to identify possible problems.

## **3. METHOD**

### **3.1. Study Design**

The students completed one set of tasks based on an artificial scenario in a laboratory setting. Quantitative and qualitative analyses, including one list of artificial scenario, SUS, EWPL, performance evaluation test, demographic information and overall assessment questionnaires were applied to six students. In this study, the SIS user interface was displayed on 15.6 inch WLED monitor with 1920 by 1080 pixel resolution using Windows 10 via Google Chrome browser. All students were participated to the study in computer laboratory of the Center for Information Systems at the university. There were one facilitator (one of the authors of this paper) and a participant at each case of the experiment. At the beginning of the evaluation session, the participant signed an informed consent form, acknowledging that: participation is voluntary, and that volunteers have the right to stop participating at any time. The participants were then instructed to read the printed task description and encouraged to think aloud as they completed each task. The facilitator observed the participant and also guided them throughout the session.

### 3.2. Participants

There is a debate how much participant is needed to conduct a usability test. It is widely assumed that five participants enough for usability studies. For example Faulkner (2003) informed that some of the randomly selected of five participants found 99% of the usability problems. In this study, pilot test was conducted to six participants. Aged of participants ranged from 21 to 26. There were three females and three males. Besides, there were five undergraduate students and one graduate student. Their majors were International Finance, International Trade and Business and Economy. Their graduate point averages (GPA) are as the following; two of the participants' GPA were between 3.00 and 3.49, one of the participant's GPA was between 2.50 and 2.99, two of the participants' GPA were between 2.00 and 2.49 and one of the participant's GPA was under the 2.00. Four of the participants described their computer skills as intermediate level and two of the participants described their computer skills between intermediate and advanced levels. One of the participants mentioned that s/he is confident about using the computer and five of the participants stated that their confidence in the use of computers could change depending on the given task. All of the participants indicated that they are using the Internet everyday and their daily computer usage ranged from one hour to eight hours. Lastly, three of the participants stated that they are using the tested SIS several times a week and the other three of the participants stated that they are using the tested SIS several times a month.

### 3.3. Test Scenarios

Although both academics and students of the univeristy use the SIS application, they have different academic responsibilities and therefore use different templates provided by the application. Since only this study was performed to get students perspective about the system, only academic tasks commonly performed by them were selected. One list of artificial test scenorios was given each participant. These tasks are shown in the following table (See Table 1).

Table 1 Artificial Tasks on the Test Scenario

Task Number	Task and Context
1	Login with your username and password.
2	You want to access the transcript. Please provide the page you need to use to perform this action.
3	You want to send a message to your academic advisor through the system. Please provide the page you need to use to perform this action.
4	You want to access help videos about the system. Please find out how to follow this path.
5	You want to change your login password. Please find out how to follow this path.
6	You want to choose a course from your department. Please provide the page you need to use to perform this action.
7	You want to choose a course that is not associated with your department. Please provide the page you need to use to perform this action.
8	You want to see deadline of the financial approval. Please provide the page you need to use to perform this action.

### 3.4. Usability Analysis

In this pilot study, any software packages that records desktop activity on the user's computer with a video camera to record the user's facial expression, captures all system events, including mouse clicks, time spent on each task, web page changes, onscreen text, error types and counts, or participant comments were not used. Tested system's usability was evaluated through questionnaires, performance measures and participants' overall assessment responds.

### 3.5. Outcome Measures

#### 3.5.1. Emotion Word Prompt List (EWPL)

Participants' immediate emotional reactions to the website were measured using a 16 item scale of emotion words commonly used to describe reactions to web sites, the Emotional Word Prompt List (EWPL). Participants rated each emotion word in response to the question "To what extent did the website make you feel each of the following?" on a 5 point scale (from 1 = Not at all to 5 = Very). EWPL consists of 9 positive, 6 negative and 1 ambiguous word.

EWPL is developed by Petrie and Harrison (2009). EWPL was the one of two techniques that Petrie and Precious (2010) used in their studies to develop simple yet effective methods for obtaining user experience of websites and other interactive technologies. It was found that the use of EWPL helps users to express their emotional reactions to websites. According to Petrie and Harrison (2009) EWPL can be effectively used as a rating scale measure to be completed after interaction with a website, which is a very efficient method of measuring emotional reaction to a website.

Turkish version of the EWPL was completed by each participant at the end of testing session.

#### 3.5.2. Performance Measures

Two performance metrics used in the study:

1. Task success rate : It measures the percentage of a given task that participants successfully complete without any significant errors. These errors result in an incorrect or incomplete outcome.
2. Percentage of correct answers: A 5-point, 10-question test was conducted to measure the user performance.

#### 3.5.3. System Usability Scale (SUS)

In addition to emotional and performance measures, the system usability scale (SUS) was conducted to get participants' perceived usability on the system. Usability puts in the center users and in order to evaluate usability of the Information Systems, it is a necessity to know users. According to several studies, most apparent way to learn about the usability of tested system is asking the participants about their experience with it (Tullis & Albert, 2013) and this can be fulfilled in a structured way by using a questionnaire (Macleod, 1994; Tullis & Albert, 2013). A variety of questionnaires have been used and reported in the literature for assessing the perceived usability of interactive systems, including SUS (Brooke, 1996), Questionnaire for User Interface Satisfaction (QUIS) (Harper & Norman, 1998) and Computer System Usability Questionnaire (CSUQ) (Lewis, 1995).

SUS was created in the 1980s by John Brooke at Digital Equipment Co. Ltd. (Brooke, 1996). SUS is potent, notorious and its use is well-established with more than 1200 publications (Brooke, 2013). SUS is a 10-item likert scale questionnaire that gives a universal view of subjective assessments of usability. SUS questionnaire has been widely used in the literature (Barnum, 2011; Brooke, 2013; Finstad, 2006; Tullis & Stetson, 2004; Tullis & Albert, 2013). That is why SUS was selected for assessing usability of the tested system.

Turkish version of the SUS was completed by each participant at the end of testing session.

### 4. Results

All participants were completed the evaluation sessions without any technical difficulties. Although number of participants of the pilot study is too small to generalize findings, results give some evidence that participants' emotional reactions to SIS, and likes, dislikes and suggestions related with the aspects of the SIS differ based on their demographic information. To illustrate, female participants showed more negative emotions to SIS compared to male participants. Therefore, analyzing users' emotional variations amongst different demographical groups is valuable because focusing on these variations has the potential to raise efficiency of user experiences with SIS.

It can be also expected that users' ratings of the usability of the SIS may differ depending on their demographic information. To illustrate, students with high GPA gave lower usability scores to SIS compared to students with low GPA.

Findings also gave cues about other valuable findings. Firstly, positive emotions may bring high usability ratings of a SIS and negative emotions may bring low usability ratings for the SIS. Thus, focusing on users' emotional reactions has a potential to raise SIS' usability ratings. Participants' overall SUS score was 58.5 which is marginal.

Participants' task success rate ranged from six to eight. Three of the participants task success were seven (87,5%), two of the participants' task success were six (75%) and one of the participants completed all of the eight tasks (100%). Participants' number of the correct answers ranged from five to 10. One of the participants replied five correct answers (50%), one of the participants replied six correct answers (60%), two the participants replied seven correct answers (70%), one of the participants replied nine correct answers (90%) and one of the participants replied 10 correct answers (100%). Although the number of participants are too small to perform analysis to get correlations between variables, it can be predicted that user performance have correlations with both user emotions and users' perceived usability ratings.

## **5. Discussion**

It has previously been shown that the adoption and advanced system implementation of SIS has the potential to enhance the efficiency and quality of academic workflow. This pilot study sets ground for future usability studies for SIS. To generalize the outcomes from the pilot study, further study needs to be done with a wider range of users. With the wider data, more analysis can be done on users' emotional reactions, performance, perceived usability and demographic information. Furthermore, with a large group it may be possible to use students' demographic information to predict their preferences for some specific features on SIS.

### **5.1. Limitations of the study**

There were some important methodological limitations in this study. This study includes a usability test with a limited number of students in a single institution as they completed a limited number of academic tasks. Also students who are conversant with the system may customize his or her interface to a varying degree, which is not reflected in this study and may have influenced the results. Additionally, none of the usability software is used in this study. Thusly, it has not been captured important usability evaluation datas such as time spent on each task, mouse clicks, mouse movements, web page changes, onscreen text, error types and counts. In addition, eye tracking data may give more accurate clues about usability of the tested system.

## **6. Conclusion**

The main goal of this pilot experiment was before experimenting large student groups to identify possible problems. Furthermore, there is no scientific evidence on usability of any Turkish Universities' SIS in the literature. So that, this study showed that this study's method can be used to evaluate students' emotions, performance and perceived usability on a specific SIS. This pilot study will serve as a baseline study for a future comparative usability evaluation of SIS in other institutions. This method can be applied to the evaluation of other academic applications as well. In order to obtain more significant results and to generalize findings, extended studies will include larger groups of students.

## **Conflict of Interest**

The authors of this paper do not have any financial and personal relationships with other people or organizations that could inappropriately influence this work.



## References

- Beale, R., & Peter, C. (2008). Affect and emotion in human-computer interaction (pp. 1-11). Berlin Heidelberg: Springer. [https://doi.org/10.1007/978-3-540-85099-1\\_10](https://doi.org/10.1007/978-3-540-85099-1_10)
- Brooke, J. (1996). SUS - A quick and dirty usability scale. *Usability Evaluation in Industry*, 189(194), 4-7. <https://doi.org/10.1002/hbm.20701>
- Brooke, J. (2013). SUS: A Retrospective. *Journal of Usability Studies*, 8(2), 29-40. <https://doi.org/10.1074/jbc.R115.675280>
- Carcary, M., Long, G., & Remenyi, D. (2007). The Implementation of a New Student Management Information System ( MIS ) at an Irish Institute of Technology – An Ex Post Evaluation of its Success. *Electronic Journal of Information Systems Evaluation*, 10(1), 31-44. Retrieved from [www.ejise.com](http://www.ejise.com)
- Faulkner, L. (2003). Beyond the five-user assumption: Benefits of increased sample sizes in usability testing. *Behavior Research Methods, Instruments, & Computers*, 35(3), 379-383. <https://doi.org/10.3758/BF03195514>
- Jordan, P. (1998). *An introduction to Usability*. London: Taylor & Francis Ltd.
- Kim, J., & Moon, J. Y. (1998). Designing towards emotional usability in customer interfaces—trustworthiness of cyber-banking system interfaces. *Interacting with Computers*, 10(97), 1-29. [https://doi.org/10.1016/S0953-5438\(97\)00037-4](https://doi.org/10.1016/S0953-5438(97)00037-4)
- Mukerjee, S. (2012). Student information systems – implementation challenges and the road ahead. *Journal of Higher Education Policy and Management*, 34(1), 51-60. <https://doi.org/10.1080/1360080X.2012.642332>
- Nielsen, J. (1993). Usability Engineering. *Morgan Kaufmann Pietquin O and Beaufort R*, 44(1/2002), 362. <https://doi.org/10.1145/1508044.1508050>
- Nordaliela, M. R., Suriani, H., & Nathaniel, E. L. (2013). Usability Analysis of Students Information System in a Public University. *Usability Analysis of Students Information System in a Public University*, 4(6), 806-810.
- Petrie, H., & Harrison, C. (2009). Measuring users' emotional reactions to websites. *Proceedings of the 27th International Conference Extended Abstracts on Human Factors in Computing Systems CHI EA 09*, 3847. <https://doi.org/10.1145/1520340.1520582>
- Petrie, H., & Precious, J. (2010). Measuring user experience of websites: think aloud protocols and an emotion word prompt list. *CHI'10 Extended Abstracts on Human Factors in ...*, 3673-3678. <https://doi.org/10.1145/1753846.1754037>
- Tullis, T., & Albert, B. (2013). *Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics: Second Edition*. *Measuring the User Experience: Collecting, Analyzing, and Presenting Usability Metrics: Second Edition*. <https://doi.org/10.1016/C2011-0-00016-9>

# An Evaluation of Privatization Effects on Employees: The Case of the Thermic Power Plant of Yatağan

Cisel Ekiz Gokmen, Suleyman Girgin

## 1. Introduction

There have been many developments concerning privatization in Turkey since the first regulation enacted back in 1984. Privatization efforts of State Economic Enterprises (SEEs) took a sharp increase especially after 2002. In many times, the privatization resulted in the replacement of some workers to other state enterprises while others remained to continue their work in the plant after the privatization.

The study aims to evaluate the working conditions of those workers continue to work at the Yatağan Thermic Power Plant which was privatized on 01.12.2014. The issues covered in the paper are based on workers' evaluation of work and income security, work security level and trade union freedoms. Another research question is to investigate whether there is any effect of the so-called Yatağan Resistance (held against privatization process continued for 447 days) on the signed Collective Labor Agreements after privatization in terms of gains and losses of employees. For this purpose, questionnaires were applied to 42 of 61 workers who continue to work at the privatized power plant.

The findings indicate that Yatağan Resistance has a significant positive effect on the signed labour contract on behalf of employees. And also, a large majority of the employees stated that a protocol would not have been signed with them and their current rights would not continue after the privatization if the Yatağan Resistance had not been taken place.

### 1.1. Privatization and Privatization Applications in Turkey

While privatization refers to the opposite of nationalization in legal terms, it refers, in economic terms, to the reduction of the share of the state in the economy and an end to its economic activities,

Although many definitions exist, privatization can be defined under two general headings, narrow and broad definitions. In the narrow term, privatization is the transfer of ownership, management and control of commercial and industrial enterprises owned by the state to private individuals and organizations, in whole or in part. In the broad term, it is not only the transfer of state-owned enterprises to the private sector; as well as the reduction or abolition of state control or intervention on the functioning of the market for economic, social, financial and political reasons (Aktan, 1993: 9).

Privatization practices in Turkey have been realized together with the *January 24 Decisions*, contain significant structural transformations for Turkey's economy, in parallel with the neo-liberal economic policies affecting the world economy from the 1980s and aimed at accelerating privatization, reducing public spending and minimizing the state (Sezgin, 2010).

The first legal regulation for the privatization program in Turkey started with the enactment of the law No. 2983 on Promotion of Savings and Acceleration of Public Investments<sup>6</sup>, in 1984 (Öztüm Tümer, 2004: 85). Since then, many legal arrangements have been made and there have been many developments concerning privatization in Turkey. As a result of these developments, the number of privatized State Economic Enterprises (SEEs) and privatization revenues increased.

It is possible to evaluate the historical progress of the revenues since 1986, when privatization policies were implemented in two periods: 1986-2003 and 2004-2017. As can be seen in Table 1, as a result of the privatization process in Turkey, about \$70 billion privatization revenues was obtained. 88% of this income was obtained between 2004 and 2017, which has resulted in consecutive economic growth rates and increasing per capita income.

---

<sup>6</sup> Date of Acceptance: 28.02.1984, It was published in the Official Gazette dated 17.03.1984 and numbered 18344.

**Table 1.** Privatization Revenues in Turkey (1986-2017)

Periods	Privatization Revenue (Billion)	Share (%)
1986-2003	8,2	11,8
2004-2017	61,0	88,2
<b>Total (1986-2017)</b>	69,2	100

**Source:** Republic of Turkey Prime Ministry Privatization Administration

During this period between 2001 and 2018, 11 ports, 90 power plants, 41 enterprises, 11 hotel-social facilities, 4085 immovable properties, 37 mining sites, 4 ships, 6808 machinery-equipment, 155 name rights, brand and vehicle inspection services have been customized. Finally, on February 20, 2018, Privatization Administration has decided to privatize 14 factories belongs to Turkey Sugar Factories Inc. The reason for the privatization has been shown that sugar factories, which left without any additional investment and maintenance since 2008, have not been modernized and profitable. As of February 2018, the tender processes of 3 ports, 6 power plants, 1 social facility, 2 mining sites and 159 immovable are ongoing<sup>7</sup>.

## 1.2. The Effect of Privatization on Employees

The effect of privatization on employees is generally evaluated under three headings in the literature: impact on (i) employment, (ii) wages and (iii) personnel transferred to other institutions. However, only the first two topics were examined since the scope of this study is on workers who continue to work in the same workplace after privatization.

According to the related literature, privatization has negative effects on employment, such as reduction in employment, increase in layoffs, unemployment (Bulut, 2008; Öztüm Tümer, 2004), unionization rate (Bulut, 2008; Işıklı, 1994; Küpeli, 1997), working hours and subcontracting relations (Bulut, 2008), worsening of working conditions and weakening of job security and social security rights (Karabıyık, 2010).

The volume of employment in Turkey has decreased by 13.8 % as a result of the privatizations so far. In the privatized workplaces, the rate of layoff and unionization is quite high, respectively 68.2% and 72% (Bulut, 2008:146). And also, privatization has a negative impact on wages such as a decrease in wages of employees, in particular with increasing utilization of subcontracting relations (Karabıyık, 2010; Öztüm Tümer, 2004) which lead to greater insecurity for all working population.

Although there are numerous researches on privatization in Turkey, privatization has generally examined in these studies related to gains of employers such as profitability, efficiency and effectiveness after the privatization. However, in these studies, the effects of privatization on workers have not been enough emphasized. The aim of this study is to evaluate the working conditions of workers that continue to work at the Yatağan Thermic Power Plant which was privatized in 2014. The issues covered in the paper are based on workers' evaluation of work and income security, work security level and trade union freedoms. Another research question is to investigate whether there is any effect of the so-called "the Yatağan Resistance" (held against privatization process continued for 447 days) on the signed collective labour contract after privatization in terms of gains and losses of employees. In this sense, this work is expected to contribute to the privatization literature in Turkey.

## 2. Methodology

Yatağan, Yeniköy and Kemerköy Thermic Power Plants, which are located within the borders of Muğla Province, started to operate respectively, in 1982, 1986 and 1993. The privatization of the Yatağan-

<sup>7</sup> Republic of Turkey Prime Ministry Privatization Administration, <http://www.oib.gov.tr>

Yeniköy-Kemerköy Thermic Power Plants and Coal Mines (and the fight against it) started in 1996 for the first time. In 2000, the transfer of the power plants and coal mines to the South Aegean Energy Consortium, by the using the *transfer of operational rights method*<sup>8</sup>, had been on the agenda for 20 years. However, the implementation of privatization were stopped by the workers' resistance and legal struggle taken against privatization and in many cases the courts prevented it on the grounds that "there is no principle of public interest" of privatization decisions.

In the 2010 referendum, the authority to seek the public interest policy has been abolished in order to prevent the courts from stopping the privatization decisions. Thus, all legal barriers to privatization were eliminated. This time, Yatağan-Yeniköy-Kemerköy Thermic Power Plants and Coal Mines were auctioned by the Privatization Administration on 27.08.2013 with the "sales method". Despite the fierce struggle during the process, on December 1, 2014, the sales decision of the power plants and coal mines was approved and the privatization was realized.

Privatization affects the working conditions of employees who continue to their work in the same workplace and leave their jobs after the privatization. The scope of this study consists of mine workers who continue to work in the lignite section of Yatağan Thermic Power Plant after the privatization. In this context, 42 of the 61 workers who continued to work in the same workplace after the privatization were applied a specific questionnaire developed for this study, between the April and May of 2018.

### 3. Findings

#### 3.1. General Features of Interviewers

As the findings of the study shows, the average age of the interviewers, all are male, is 40 years old. The majority of the interviewees (83%) were high school graduates<sup>9</sup>. Only two of respondents had university degree. Two of the interviewees are single, others are all married. The average household size is approximately four persons.

---

<sup>8</sup> It is the transfer of the right to operate the workplace under a certain period and conditions, without transferring the right of ownership. Within the framework of the law no. 4046, privatization practices have been applied in the privatization of ports by means of transfer of operating rights (Orkunoglu, 2010:8).

<sup>9</sup>High school covers the grades of 9<sup>th</sup> to 12<sup>th</sup>.

**Table 2.** General Features of Interviewers

	<b>Interviewers (42)</b>
<b>Age</b>	39.97
<b><i>Education Status</i></b>	
<b>Primary School</b>	3 (7.14)
<b>Middle School</b>	2 (4.76)
<b>High School</b>	35 (83.33)
<b>Associate Degree</b>	1 (2.38)
<b>License</b>	0 (0.00)
<b>Graduate</b>	1 (2.38)
<b><i>Marital Status</i></b>	
<b>Married</b>	40 (95.24)
<b>Single</b>	2 (4.76)
<b>Average Household Size</b>	3.80

**Note:** The numbers in parentheses indicate percentages.

### 3.2. Working Status of Interviewers

The Table 3 summarizes the working status of study participants, 9 identified themselves as workers without specifying their profession. Among the interviewees, 7 as heavy truck driver, 6 repairmen, 6 welding master and 6 machine operators. In addition, among the interviewers, there are also electrician, turning leveler, waiter, shunter and mine technician. The average number of years spent working at Yatağan Thermic Power Plants was of 12.5 years and an average monthly income was 3000 TL and a total household income of 3500 T

**Table 3.** Working Status of Interviewers

<b>Job</b>	<b>Interviewers (42)</b>
<b>Worker</b>	9
<b>Heavy Truck Driver</b>	7
<b>Repair Master</b>	6
<b>Welding Master</b>	6
<b>Machine Operator</b>	6
<b>Electrician</b>	4
<b>Turning Leveler</b>	1
<b>Waiter</b>	1
<b>Shunter</b>	1
<b>Supervisory (Mine Technician)</b>	1
<b>Average Working Time (Years)</b>	12.45 (7-35)
<b>Individual income (Monthly Average TL)</b>	2961 (2.200-6.000)
<b>Household income (Monthly Average TL)</b>	3500 (2.200-

**Note:** The numbers in parentheses indicate the minimum and maximum values.

### 3.3. Changes after Privatization

The study examines the effects of privatization on working life by comparing the conditions signed in the collective labor agreements pre and post privatization. The Table 4 summarizes the changes occurred in the various areas of working life post- privatization.

Field research findings revealed that there was no change after privatization in the interviewers' wage levels, working conditions, workplace positions, working times, and also in kind and in cash assistance, shuttle buses service, in the quality of social services (such as lodging, guest house etc.) and the behavior and attitudes of business managers.

Furthermore, a significant number of interviewers stated that after the privatization, the company-provided meals worsened, but lodging fees and occupational health and safety practices were improved.

**Table 4.** Changes after Privatization**Note:** The numbers in parentheses indicate percentages.

	<b>Much better</b>	<b>Somewhat better</b>	<b>Stay the same</b>	<b>Somewhat worse</b>	<b>Much worse</b>
<b>Wage/Salary</b>	2 (4.76)	5 (11.90)	33 (78.57)	1 (2.38)	1 (2.38)
<b>Working conditions</b>	2 (4.76)	3 (7.14)	28 (66.67)	9 (21.43)	0 (0.00)
<b>Position at work</b>	3 (7.14)	3 (7.14)	35 (83.33)	1 (2.38)	0 (0.00)
<b>Working time</b>	1 (2.38)	1 (2.38)	36 (85.71)	4 (9.52)	0 (0.00)
<b>Benefits in kind (charcoal assistance, clothing etc.)</b>	1 (2.38)	1 (2.38)	37 (88.10)	3 (7.14)	0 (0.00)
<b>Cash benefits (child, education, etc.)</b>	0 (0.00)	1 (2.38)	41 (97.62)	0 (0.00)	0 (0.00)
<b>Workers' shuttle buses</b>	1 (2.38)	2 (4.76)	32 (76.19)	7 (16.67)	0 (0.00)
<b>Food provided in the workplace</b>	0 (0.00)	2 (4.76)	21 (50.00)	18 (42.86)	1 (2.38)
<b>Level of utilization of social services (such as lodging, guest house)</b>	7 (16.67)	14 (33.33)	20 (47.62)	1 (2.38)	0 (0.00)
<b>The quality of social services (such as lodging, guest houses)</b>	5 (11.90)	7 (16.67)	16 (38.10)	14 (33.33)	0 (0.00)
<b>Lodging fees</b>	11 (26.19)	27 (64.29)	4 (9.52)	0 (0.00)	0 (0.00)
<b>Occupational health and safety practices</b>	6 (14.29)	22 (52.38)	13 (30.95)	1 (2.38)	0 (0.00)
<b>Trade union activities</b>	2 (4.76)	11 (26.19)	26 (61.90)	2 (4.76)	1 (2.38)
<b>Behaviors and attitudes of business managers</b>	2 (4.7)	3 (7.14)	36 (85.71)	1 (2.38)	0 (0.00)

Table 5 compares the Collective Labor Agreements signed pre- and post- privatization. Accordingly, the Collective Labor Agreement signed after privatization, is more improved and included much more advantageous clauses in the terms of occupational health and safety practices and social facilities, compared to the pre- privatization Collective Labor Agreement. However, it is not advantageous in terms of company-provided meals in the workplace.

In other matters (wages, working conditions, working hours, kind-cash benefits and workers' shuttle buses), there is no advantage or disadvantage in the collective bargaining agreements signed before and after the privatization. In summary, as a result of the collective labor agreement signed after privatization, it is observed that the working conditions of the workers have not gotten any worse. The

Yatağan Resistance, which will be briefly summarized below, is the main factor behind this positive and unexpected continued satisfaction of workers.

**Table 5.** Comparison of the Collective Labor Agreements Signed Pre-and Post- Privatization

<i>Collective Labor Agreements signed after privatization according to Collective Labor Agreements signed before privatization is,</i>					
	Quite Advantageous	Advantageous	Same	Disadvantageous	Quite disadvantageous
<b>In terms of fee</b>	0 (0)	9 (21.43)	29 (69.05)	4	0 (0)
<b>In terms of working conditions</b>	1 (2)	5	26 (61.9)	9 (21.43)	1 (2.38)
<b>In terms of working time</b>	2 (4.76)	2	31 (73.81)	7	0 (0)
<b>In terms of benefits</b>	0 (0)	2	34 (80.95)	6	0 (0)
<b>In terms of cash benefits</b>	1	2	34 (80.95)	5 (11.90)	0 (0)
<b>In terms of social facilities (lodging, guest house etc) and their monetary counterparts</b>	5 (1)	25	9 (21.43)	1	2 (4.76)
<b>In terms of occupational health and safety practices</b>	6 (14.29)	21 (50.00)	15 (35.71)	0 (0)	0 (0)
<b>In terms of workers' shuttle buses</b>	1 (2.38)	1	29 (69.05)	11	0 (0)
<b>In terms of food provided in the workplace</b>	0 (0)	3	20 (47.62)	18 (42.86)	1 (2.38)

**Note:** The numbers in parentheses indicate percentages.

### 3.4. Yatağan Resistance and the Importance of Trade Union Organization

The fight against privatization in Yatağan lasted 18 years (1996-2014). In this sense, Yatağan Resistance is the longest-standing resistance that puts privatization directly on its main target. During the 447 days between, the hardest struggle was given. The resistance began with the will of workers. And also, the collective will of the workers has decided how and in what condition the resistance would be terminated. A protocol was signed on the December 5<sup>th</sup>, 2014 with the company that bought Yatağan Thermal Power Plant and Coal Mines (Elsan Electric). The protocol that ended the resistance was recorded with the approval of all workers, as a result of the transparent negotiations conducted with the commission selected by the mine business managers and the workers.

Table 6 summarizes the participants' views on Yatağan Resistance. Accordingly, the majority of the interviewees stated that the protocol signed after privatization and the continuation of the collective bargaining rights and also the increase of 4-C period from 6 months to 2 years after the privatization were the acquisition of the Yatağan Resistance. The vast majority of the interviewees also stated that the collective bargaining agreement and the implementation of the protocol depend on trade union organization, and that if the protocol was not signed after the transfer, their rights would not continue.



**Table 6.** Opinions about Yatağan Resistance**Note:** Numbers in parentheses indicate percentages.

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
The protocol signed after the privatization is a gain of Yatağan Resistance.	21 (5 0.00)	18 (4 2.86)	1 (2.38)	0 (0.00)	2 (4.76)
The continuation of my Collective Labor Agreements rights after the privatization is the acquisition of Yatağan Resistance.	21 (5 0.00)	16 (3 8.10)	5 (1 1.90)	0 (0.00)	0 (0.00)
The increase in the 4-C period from 6 months to 2 years is the result of Yatağan Resistance.	23 (5 4.76)	13 (3 0.95)	2 (4.76)	3 (7.14)	1 (2.38)
The implementation of the Collective Labor Agreements and the protocol depends on trade union organization	22 (5 2.38)	19 (4 5.24)	1 (2.38)	0 (0.00)	0 (0.00)
If the protocol was not signed after the privatization, our rights today would not have continued.	23 (5 4.76)	12 (2 8.57)	2 (4.76)	3 (7.14)	2 (4.76)

Table 7 discusses the importance of trade union organization in various aspects. It shows that, the majority of the interviewees believe that trade union organization is important or even very important in terms of the protection of current rights, obtaining new rights, being and acting in organized power and solidarity.

**Table 7.** Opinion on Trade Union Organization and Rights

<i>State the importance of trade union organization in the following areas.</i>					
	Very important	Important	Undecided	Not important	Not very important
In terms of protection of current rights	18 (42.8)	21	2 (4.76)	0 (0.00)	0 (0.00)
In terms of obtaining new rights	17	22	2 (4.76)	0 (0.00)	0 (0.00)
In terms of being organized power	21	17	3 (7.14)	0 (0.00)	0 (0.00)
In terms of solidarity	21	18	2 (4.76)	0 (0.00)	0 (0.00)

**Note:** 1 person has not responded to this question.

#### 4. Discussion

The study aims to evaluate the working conditions of workers who continue to work at the Yatağan Thermic Power Plant which was privatized on 01.12.2014. The study also aimed to investigate whether there is any effect of the Yatağan Resistance on the signed collective labour contract after privatization in terms of gains and losses of employees. For this purpose, questionnaires were applied to 42 of 61 workers who continue to work at the privatized power plant. The findings indicated that Yatağan

Resistance had a significant positive effect on the signed labour contract on behalf of employees. And also, a large majority of the employees stated that a protocol would not have been signed with them and their current rights would not continue after the privatization if the Yatağan Resistance had not been taken place.

Although the Yatağan Resistance, lasted for 447 days, did not reach its main goal against the privatization of the workplaces, it is an important gain in the sense of transferring resistance and struggle culture to the future. Although the workplaces were transferred to the private sector, employer representatives could only enter the workplace after accepting and signing the demands of the worker with a protocol. And also, the political power has increased the 4-C period from 6 months to 2 years as a result of the Yatağan Resistance. Even this is a result of resistance in itself.

In summary, this process has resulted in gain in terms of Yatağan workers. However, our country has lost as a result of privatization in the macro dimension. Although the interviewers stated that the occupational health and safety practices were improved after privatization in Yatağan Thermic Power Plant, on July 19, 2018 a disaster occurred, as a proof that the health and safety improvements were not resulted in structural changes. This is the first disaster in the 36-year-old thermal power plant and was realized after the privatization. This disaster, in which 2 workers died and 10 workers were injured as a result of the collapse of the coal delivery channel, reveals that the most negative effect of privatization on employees is the threat of life safety and exposes the necessity of urgent expropriation of all privatized institutions.

## 5. References

- Aktan, C. C. (1993). *Kamu ekonomisinden piyasa ekonomisine özelleştirme*. Ankara: Takav Matbaası.
- Bulut, K. (2008). Özelleştirme politikalarının istihdam boyutu ve enerji sektörü. Retrieved at March 02, 2018, from [http://www.emo.org.tr/ekler/0a0a1beaf4d6304\\_ek.pdf](http://www.emo.org.tr/ekler/0a0a1beaf4d6304_ek.pdf)
- Işıklı, A. (1994). *Özelleştirme ve sendikalar. Özelleştirme tartışmaları*. İstanbul: Bağlam Yayıncılık.
- Karabıyık, İ. (2010). Türkiye’de özelleştirmenin çalışma hayatı üzerinde etkileri. *Hukuk, Ekonomi ve Siyasal Bilimler Aylık İnternet Dergisi*, 98, 1-13.
- Küpeli, B. (1997). Özelleştirme, yaşanan işten çıkarmalar ve sendikasızlaştırma örnekleri. *Türk-İş Dergisi*, 24-34.
- Orkunoğlu, I. F. (2010). Özelleştirme ve alternatifleri. *Akademik Bakış Dergisi*, 22, 1-22.
- Öztüm Tümer, E. (2004). *Türkiye’de özelleştirmenin ücret ve istihdam üzerindeki etkisi*. (Unpublished master thesis). T.C. Ankara Üniversitesi Sosyal Bilimler Enstitüsü Çalışma Ekonomisi ve Endüstri İlişkileri Anabilim Dalı, Ankara.
- Republic of Turkey Prime Ministry Privatization Administration. (2018). Privatization revenues. Retrieved at March 05, 2018, from <http://www.oib.gov.tr>
- Sezgin, Ş. (2010). Politika transferi ve Türkiye’de özelleştirme. *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi*, 27. Retrieved from <http://dergipark.gov.tr/dpusbe/issue/4769/65598>



# Evolution of Human Resources Management Practices in Japanese Companies

Osman Bayraktar

## 1. Introduction

Management is a universal phenomenon. But management practices like other social phenomena are also influenced by the culture and values of societies. These are the distinguishes management practices from each other and give them originality. For this reason, it is possible to mention a European style, a Chinese management style, a Japanese management style, or the American management style. This article firstly touched on the national and historical qualities that form the basis of Japanese management style, especially in the field of human resources. Then, the deep financial crisis in Japan in the 1990s and how human resources management practices affected the understanding and practices that became more evident after 2000 years are explained.

Sources and data that can be accessed on the internet were used in this article. This is a qualitative study in the form of a literature review. With a history dating back to thousands of years, it is possible to take the concept of Japanese management style from the last quarter of the nineteenth century, the great breakthrough of the country, until the Meiji period. However, as this issue is addressed in terms of human resource management; it will focus on post-World War II, when Japanese enterprises make great strides in the industry and more on the post-1990 period.

## 2. The Impact of National Cultural Values in Japan Management Practices

National culture is a factor that determines people's mentality, the ways of thinking, feelings, and behaviors from their childhood to their adulthood (Hofstede, 2001). In other words, the national culture deeply affects the way people live where in the Japanese context, where the culture is really archaic and complex, it is really important in the locals' lives. Here, Confucianism is one of the most important elements of the Japanese culture and as the other elements of the national culture, directly affect the business life as it is the case for the other parts of the daily life (Haghirian, 2010). Specifically, in terms of business life, we can see the reflection of the Confucian values in the emergence of Japanese HRM (Keizer and et al, 2017).

## 3. Basic Characteristics of Traditional Japan Human Resources Management

The three primary characteristics of the Japanese management style, which are associated with national cultural codes, are (Dalton & Benson, 2002): (1) Lifetime employment, (2) Seniority-based payment, and (2) Company Unions.

### 3.1. Lifetime Employment

In Japanese culture, which has a collectivist character, when people enter an enterprise, they become members of a society beyond entering a business (Vaszkun & Tsutsui, 2012). Just as it is hard for an individual to join a new family, it is difficult to get started in a Japanese organization. As a common practice, businesses take staff only once a year in April (Reports, 2012). The candidate pool is made up of people who have just completed their university or have not yet completed their education. Pauses after college are not considered eligible for the candidates for employment. Leading qualities sought in candidates are not knowledge and experience, but educability and consistency. The selection phase takes a long time. Candidates are subjected to interviews with many people. Once you have entered a job, you are now freed from worries about your health and careers as a member of that community. It is difficult to leave a job as much as it is difficult to get a job. Because it is very difficult for a person to find a job at an intermediate level in another business.

There are a number of advantages of the practice of lifetime employment for both employees and the company. The company benefits from this practice as the stability of lifetime employment inspire

devotion and loyalty in employees, which in turn generates improved employee performance. Employees are also provided with continual training in all areas of the company to the company throughout their career (Haghirian, 2010). Lifetime employment also leads to a decreased turnover rate for the company, which means that talent is retained within the company, so the company receives a return on the human resources that it has invested in. For employees, the primary advantage of lifetime employment is stability – employees are guaranteed to receive a pension after retirement. Lifetime employment also provides a strong platform for career development and steady salary increases (Powell, 2016).

### 3.2. Seniority-based Payment

The most important factor determining the fee in the traditional Japanese HRM system is seniority. Therefore, all candidates will receive an almost equal salary when starting out. The wages of the quiche increases only until the age of 45 due to seniority. 45 years is an important turning point in working life. At this stage, top management leaves the others. Others are retired when their working time expires (Drucker, 1971). As of 2017, the retirement age in Japan is 62. It is foreseen to be raised to 65 in 2025 (Rodionova, 2016).

### 3.3. Company Unions

All employees of the firm, with the exception of those in managerial positions above a certain rank, were represented by a single union. These unions tend to have a harmonious relation with management to avoid disruption to the firm's operations. These employment practices created strong ties between the firm and its employees and contributed to employee commitment (Keizer and et al, 2017).

The other authors these five key characteristics of Japanese HR Management (Dordevic, 2016): (a) Collective decision making, (b) Discreet performance appraisal, (c) Strong sense of obligation to colleagues and superiors, however to a certain extent discrimination against women, (d) Commitment to high quality, (e) Loyalty and long-term commitment to organization.

The comparison of traditional Japanese Human Resource Management with American-style human resource management is given in Table 1.

**Table 1.** Comparison of US Style Traditional HRM Model/Japanese Style Traditional HRM Model

	US HRM Model	Japanese HRM Model
<b>Recruitment and Selection</b>	Minimum screening in hiring	Selective once-a-year recruitment of new graduates
<b>Training</b>	Little company training	Extensive company training and education
<b>Compensation</b>	Job-based wages	Periodic pay raises and internal promotion based on evaluations
<b>Job Assignment</b>	Narrowly defined jobs and rigid job assignments	Flexible job assignments and small-group activities
<b>Job Security</b>	Frequently layoffs and limited job security based on seniority rights	Employment security until the age of mandatory retirement
<b>Labor Union</b>	Non-cooperative labor-management relations	Enterprise union and labor-management consultations
<b>Personnel Management</b>	Major status distinctions between white-collar and blue-collar employees	Unified personnel management of white-color and blue color employees

**Source:** Chiaki Moriguchi, (2014). Japanese-style human resource management and its historical origins. *Japan Labor Review*, 11(3), 58-77.

#### 4. Stages of Change in Japanese Human Resources Management Practices

After World War II, Japanese human resource management practices are divided into different periods by schoolers (Vaszkun & Tsutsui, 2012). For the purposes of this article, the period of change in Japanese human resource practices were chosen as 1945-1960; 1960-1973 period; 1973-1990 period; four rounds, 2000 and later.

**1945-1960 Period:** The emergence of footfall after the Great War. With the defeat of the Second World War, Japan was left with a hundred cases to pay for large war reparations. This situation led to a great work enthusiasm in society instead of despair. The lack of natural resources makes management skills and human ability in the foreground.

**1960-1973 Period:** Management practices that amaze the world. It is the period called 'Miracle of Japanese Management' in the world. The most brilliant reflection of the collective Japanese culture on the subject of management is that total quality practices have become widespread in this period. American scientist Edward Deming, who has not had the opportunity to apply quality considerations in America, has had the opportunity to apply these ideas to Japanese businesses.

**1973-1990 Period:** The oil crisis is making an economic change. Because of energetic high external dependence Japan was one of the countries most affected by the 1973 oil crisis. High energy costs have weakened competitive power, and many businesses have had to narrow down.

**1990-2000 Period:** The effects of the great financial crisis. The 1990s is widely known in Japan as the 'lost decade (Olejniczak, 2013)'. A drop of nearly 50% in the value of the Nikkei Stock Index triggered a series of financial institutions bankruptcies as well as the spiral of so-called 'bad debts' which ultimately led to economic growth falling to 1% percent (Erdönmez, 2002). In this period Japanese multinationals increasingly moved parts of production out of Japan.

Benson ve Dabroux (2004) states that the financial crisis in 1990s caused change in six fields in the Japanese Human Resources applications: (1) The diversification of remuneration and promotion practices, (2) Performance rather than seniority coming to the form in terms of payments and career, (3) The increase in the interest to the concept of competency which includes knowledge, skill, behavior and attitude within itself. (4) Payments evaluated in annually. According to this system, it is not guaranteed to have the rise in the wage got in a year to be bot in the coming years. (5) Collective bargaining system changing for the benefit of the employer. In this new term, while the share that the employees get because of their seniority decreases, the guarantee of jobs is also weakened. (6) The changing role of unions in the enterprises. Enterprise unions used to represent the workers working in an enterprise regularly. After 1990s they were directed to take the huge number of young employees that work in small businesses and defend their rights.

**Years 2000 and Beyond:** Disengagement from traditional human resources management practices. The change that began in the 1990s with the enforcement of more foreign dynamics in the Japanese economy has begun to lead to structural changes in human resource management practices since the years of 2000. The dynamics that force change after the 2000s are; Japanese businesses operating in different countries and multinational companies operating in Japan: Foreign enterprises investing in Japan experienced difficulty in finding employees from mid-levels because of the conventional Japanese management values.

**Change in the cultural values:** The new generation of Japanese youth started to abandon the understanding of grounding on seniority in the wages and promotions, which were forced by the conventional Japanese management system; and the expectation of rewarding according to talents have come to the front.

**The need for businesses to go downsizing:** Businesses experiencing difficulty in competition, in order to reduce expenses were obliged to downsize. And this damaged the principle of life-time employment, which is one of the three elements of conventional Japanese management.

**The weakening of enterprise unionism:** There are some aggregate data that suggest that Japanese trade unions' bargaining position has been significantly weakened during the post-bubble period. For example, there has been a major decline in trade union membership from more than 30% in the 1970s to 18.5% in 2009 (Keizer and et al, 2017).

## 5. New Approaches to Japan Human Resources Management Practices

Economic changes and changes in cultural values have resulted in some of the traditional Japanese human resources management being forbidden. New aspects of Japanese human resources management are as follows.

### 5.1. Change in the Form of Employment

One of the basic principles of the traditional Japanese management, lifelong employment seems to be limited only to the employees of the core staff. Instead, two new forms of employment have become widespread: temporary workers and contract workers.

Employees' social rights are very high with the discontinuous employment contract in Japanese businesses. From the point of view of the enterprises, to high cost applications. For this reason, enterprises are trying to keep the core number as small as possible. Temporary workers are called only once and are sent back when the job is over. These qualified employees are provided by the subcontractors' channel. Employees who are contract workers are invited for more specialized jobs and contracted in this regard. When the contract is over, the relationship with the business is also over. Part-time jobs have no job security, pay a lot less, and their holders will not receive any bonuses, a pension plan, or national health insurance (Haghirian, 2010). The results of the Labor Force Survey conducted by the Ministry of Internal Affairs and Communications show that while in 1990 non-regular workers accounted for 20.2% of the total number of employed workers, this percentage rose to 26.0% in 2000, 33.7% in 2010, and 37.5% in 2015 (www.jil.go.jp, 2017).

**Table 2.** Type of Employment Contracts

	Type of employment	Employees eligible	Wages	Bonuses	Basis for promotion/ advancement
<b>Core group of long-term employees (A)</b>	Open-ended contract	Managerial career track, core-technical occupations	Monthly salary or yearly remuneration package; ability-based wages; wage increment	Specified and sliding scale for performance	Promotion to managerial ranks; pay increase based on job performance qualifications
<b>Specialists (B)</b>	Fixed-term contract	Specialist occupations (planning, sales, R&D, etc.)	Yearly remuneration package; performance wages; no wage increment	Sharing of company performance results	Evaluation of performance
<b>Flexible workforce (C)</b>	Fixed-term contract	Clerical, technical, etc.	Hourly wages; Job-based	Specified rate	Switch to higher-ranking position

contract sales wages; no  
positions wage  
incremen  
t

**Source:** Keizer, A., Umemura, M., Delbridge, R., & Morgan, G. (2017). Japanese management 20 years on, [www.research.manchester.ac.uk](http://www.research.manchester.ac.uk).

Ono (2010) states that the life-time employment, which is mentioned to be one of the three elements of the Japanese management system was only valid for only a small group only in practice. According to Ono, only 20% of the firms with more than 500 employees where employed life-time.

From seniority to merit-based systems. The youth presenting their skills in a shorter term and expectation of wages directs the businesses to establish performance based payment systems rather than seniority based payment systems. The elements that distinguish overall performance-based totally HRM practices from traditional Japanese HRM practices are: (1) weakening of a seniority structure and an potential improvement structure in worker grades and compensation practices; (2) proportional wage expenses in accordance with overall performance; and (3) strict and particular evaluation of individual results and performance (Sekiguchi, 2013).

## 5.2. The Decline of Enterprise Unions

In Table 3, the change in the number of Company Unions and union members in the term from 1990 to 2015 are shown. In 25 years, the number of unions regressed to 39% and the number of members to 32%. The most important reason for the decrease of the number of union members while the number of employees in the country is increasing is that the workers in the temporary statute do not enroll to the company union (Aoki, Delbridgeb, & Endob, 2014).

**Table 3.** Trends in Number of Labor Unions, Members and Organization Rate

	1990	2000	2010	2013	2014	2015
<b>Labor</b>	72,20	68,73	55,91	54,18	53,52	52,76
<b>Unions</b>	2	7	0	2	8	8
<b>Members</b>	12,19	11,42	9,988	9,822	9,777	9,825
<b>(1,000 persons)</b>	3	6				
<b>Estimate</b>	25.2	21.5	18.5	17.7	17.5	17.4
<b>d</b>						
<b>Organization Rate</b>						

**Source:** [www.jil.go.jp](http://www.jil.go.jp) (2017). Japanese Working Life Profile 2016/2017.

In recent years, there has been a growing gap in wage increases among companies in the same industry based on the companies' performances. As well, unions have indicated that they may shift their focus away from wage increases and focus more on other areas such as job security and expanding membership in order to include part-time and contract workers (Firkola, 2006).

## 5.3. Less Investment in in-House Training.

The increase in the proportion of temporary and contract employees has resulted in less resource allocated to training and training activities of the enterprises.

## 6. Discussion

No matter how challenging external dynamics are, it is not so easy to break the influence of national cultures and traditional values on management practices. There have been significant changes in human resource management practices in Japan over the last quarter century, as described above. However, this should not be construed as the Japanese abandoning traditional management systems



altogether. Even if the business is willing, this is not a change that can be easily done. Moreover, Japanese businesses have largely made a consensus that they still depend on traditional practices. Interest in talent management in this regard is a good example. Talent management, one of the most talked-about topics in the American management style over the last decade, has not received much attention in Japanese business and Japanese management literature, as shown in Table 4.

**Table 4.** Comparisons of the Characteristics of Modern Talent Management and Japanese Companies

<b>Characteristics of Modern Talent Management</b>	<b>Characteristics of Traditional Japanese Human Resource Management System</b>
<b>Trusting individual skills &amp; strengths</b>	Emphasis on teams & organization, seldom “entrust to the power of individuals”
<b>Emphasis on total degree of leadership</b>	Leadership can belong to only a handful
<b>Performance first</b>	Value not just performance, but also process & attitude In some cases process & attitude are prioritized over performance
<b>Overwhelming sense of speed</b>	Long-term nurturing as presented by “one needs to work for at least 10 years to become a full-fledged professional”
<b>Accepting differentiation</b>	Equal management system based on the year one joins the company
<b>Supervisor’s commitment</b>	Nurturing is outside the supervisor’s mission
<b>Ownership of individuals</b>	A sense of security that “the company will not do me ill”

**Source:** Naoko Ishihara (2016). Can human resource management systems in Japan shift to talent management? *Japan Spotlight*, 28-31.

In Table 5, the reasons why the workers became unemployed between 2000-2005 are shown. 2009 and 2010 are the years where the number of leaves of employment is the higher as a result of the economic crisis in 2008. The detail that attracts attention in the table is the increase in the volunteer leaves of employment with the years passing. This data shows that Japanese people changed their manner towards employment. Especially housewives choose irregular working to take care of their children better. Lifetime work understanding of the people in the Japanese firms seems to be shaken majorly. In 2014, the government survey confirmed that half of the young employees underneath the age of 35 have been not running for his or her first company, as mid-career task changes have ended up more commonplace (Oi, 2016).

**Table 5.** Reason for Unemployment According Groups

Reason for unemployment	2000	2005	2009	2010	2011	2012	2013	2014	2015
<b>Total</b>	320	294	336	334	284	285	265	236	222
<b>Quit job for involuntary reasons</b>	102 (3.1)	100 (3.4)	145 (3.2)	137 (4.1)	106 (3.7)	102 (3.6)	90 (3.4)	73 (3.1)	65 (2.9)
<b>Quit job for voluntary reasons</b>	9 (0.3)	11 (0.4)	10 (0.3)	10 (0.3)	97 (3.4)	10 (0.4)	96 (3.6)	90 (3.8)	89 (4.0)
<b>Graduated from school</b>	18 (5.6)	16 (5.4)	14 (4.2)	16 (4.8)	15 (5.3)	16 (5.6)	15 (5.7)	12 (5.1)	10 (4.5)
<b>Others</b>	80 (25.0)	65 (22.1)	70 (19.8)	71 (21.3)	62 (21.8)	62 (21.8)	59 (22.3)	56 (23.7)	54 (24.3)

Source: www.jil.go.jp (2017). Japanese working life profile 2016/2017.

It is stated that loyalty remains valued extremely by managers in Japan and is essential in the Japanese way of life due to that fact that winning have an impact on of Confucian philosophy (Vaszkun & Tsutsui, 2012). However, it is also apparent from the data that the employee loyalty will decline in alignment with lifetime employment and the youth generations in Japan will continue to demand price flexibility and numerous profession reports over loyalty to one organization. This is directly related to the fact that Japanese groups have internationalized and the global companies have entered Japan are bringing alternative human useful resource control practices (Powell, 2016).

One of the most important problems that Japan will be obliged to compete with is the rate of increase in the number of elderly population. People over 65 are now expected to account for 60 per cent of Japan's population by 2060, according to government's estimates. The country could lose more than 27 million workers in future if it does not address some of the lowest birth-rates in the world, at just 1.4 children per woman (Rodionova, 2016). Low fertility rates and rising life expectancy are causing the ratio of Japanese workers to retirees to shrink. According to World Bank, between 2010 and 2040, the share of Japan' working-age population will fall by more than 10 per cent (Debroux, 2016). Due to the decrease in population, Japanese companies have started to hire human resources from outside (Ishihara, 2016).

## 7. References

- Aoki, K., Delbridge, R., & Endoh, T. (2014). Japanese human resource management in post-bubble Japan. *The International Journal of Human Resource Management*, 25(18), 2551-2572.
- Benson, J., & Debroux, P. (2004). The changing nature of Japanese human resource management. *International Studies of Management & Organisation*, 34(1), 32-51.
- Dalton, N., & Benson, J. (2002). Innovation and change in Japanese human resource management. *Asia Pacific Journal of Human Resources*, 345-362.
- Debroux, P. (2016). Elderly workers in Japan: The need for a new deal. *Management Revue*, 27(1-2), 82-96.

- Dordevic, B. (2016). Impact of national culture on international human resource management. *Ekonomске Teme*, 45(2), 281-300.
- Drucker, P. F. (1971, March). What we can learn from Japanese management. *Harvard Business Review*.
- Erdönmez, P. A. (2002). *Japonya mali krizi {Japanese fiscal crises}*. İstanbul: Türkiye Bankalar Birliği.
- Firkola, P. (2006). Japanese management practices past and present. *Economic Journal of Hokkaido Univ.*, 35, 115-130.
- Haghirian, P. (2010). *Understanding Japanese management practices*. New York: Business Expert Press.
- Hofstede, G. (2001). *Culture`s consequences*. Thousand Oaks: Sage Publications.
- Ishihara, N. (2016). Can human resource management systems in Japan shift to talent management? *Japan Spotlight*, 28-31.
- Keizer, A., Umemura, M., Delbridge, R., & Morgan, G. (2017). *Japanese management 20 years on*. Retrieved 12 30, 2017, from [www.research.manchester.ac.uk:https://www.research.manchester.ac.uk/portal/files/37901468/FULL\\_TEXT.PDF](http://www.research.manchester.ac.uk:https://www.research.manchester.ac.uk/portal/files/37901468/FULL_TEXT.PDF)
- Moriguchi, C. (2014). Japanese-style human resource management and its historical origins. *Japan Labor Review*, 11(3), 58-77.
- Oi, M. (2016, March 22). *Japan seeks alternatives to its pay system*. Retrieved 01 06, 2018, from <http://www.bbc.com/news/35868599>
- Olejniczak, T. (2013). Japanese management: 50 years of evolution of the concept. *Acta Asiatica Varsoviensia*(26), 7-26.
- Ono, H. (2010). Lifetime employment in Japan: Concepts and measurements. *Journal of The Japanese and International Economies*(24), 1-27.
- Powell, M. (2016). Human resource management practices in Japan: Are they really changing? *Merici*, 2, 77- 90.
- Reports, H. A. (2012). Japan, traditional employment practices in Japan. Tokyo.
- Rodionova, Z. (2016, March 13). *Japan's elderly keep working well past retirement age*. Retrieved January 22, 2018, from <http://www.independent.co.uk/news/business/news/japan-retirement-pension-elderly-work-employment-age-a6909166.html>
- Sekiguchi, T. (2013). Theoretical implications from the case of performance-based human resource management practices in Japan: management fashion, institutionalization and strategic human resource management perspectives. *The International Journal of Human Resource Management*, 24(3), 471-486.
- Vaszkun, B., & Tsutsui, W. M. (2012). A modern history of Japanese management thought. *Journal of Management History*, 18(4), 368-385.
- [www.jil.go.jp](http://www.jil.go.jp). (2017). *Japanese Working Life Profile 2016/2017*. Retrieved January 23, 2018, from <http://www.jil.go.jp/english/jwl/2016-2017/all.pdf>
- [www.jil.go.jp](http://www.jil.go.jp). (2017). *Labor Situation in Japan and its analysis detailed exposition 2016/2017*. Retrieved January 22, 2018, from <http://www.jil.go.jp/english/ljs/detailed/2016-2017.html>
- [www.stat.go.jp](http://www.stat.go.jp). (2017, December 26). *Summary of the November 2017 survey results*. Retrieved January 22, 2018, from <http://www.stat.go.jp/english/data/roudou/results/month/index.htm>

# The Reflections of Industry 4.0 on the Textile & Fashion Business Processes

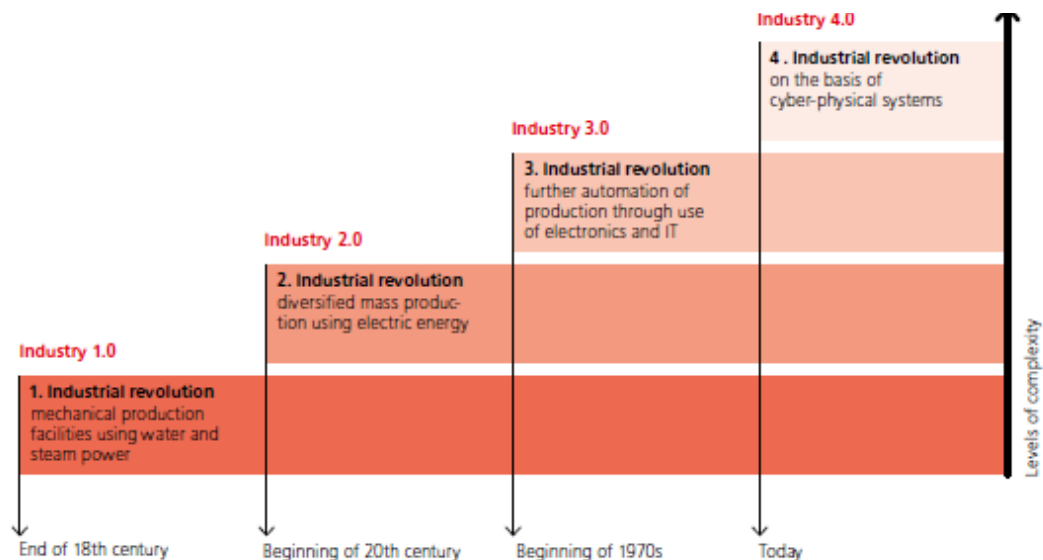
Evrin Kabukcu

## 1. Introduction

Innovation is also about “*new processes and new ways of doing things*” that may not be obvious to customers but add significant value in delivering the services and products that customers require (Kellogg, 2002). The dynamic nature of textile & fashion industry has put pressure on companies to innovate, collaborate and to redesign business processes. With the redesign of the industrial processes according to industry 4.0 and technological advances, all the processes related to production and logistics may become more *flexible, rapid* and *agile* in textile & fashion value chains.

## 2. Towards Industry 4.0

Growing digitisation provides the launch pad from which we are lifting off into the “*second machine age*” (Brynjolfsson & McAfee 2014). This is due to the fact that data forms the material of *this fourth industrial revolution* (see figure 1). In the future, data will be ubiquitous and omnipresent. Whoever can access this limitless data treasure, will benefit enormously, above all from flexibility and efficiency. Industry 4.0 could become a result of this ongoing digitisation in which everything along the value creation chain is networked and all of the relevant information can be independently and directly exchanged between the individual chain links. *Linking people, objects and systems* can lead to dynamic, real-time-optimised and self-organising, cross-company value added networks that can be optimized according to different criteria, for example cost, availability and resource consumption (Plattform Industrie 4.0, 2014). Thus, the vision is about efficiency in its purest form: maximum flexibility with the perfect flow of value creation.



**Figure 1.** Industrial Revolutions One to Four  
(Fraunhofer IAO, 2013; Buhr 2015)

The term “*Industry 4.0*” was first introduced by the German Industry-Science Research Alliance (Forschungsunion) in 2011. It refers to *digitising* industrial production. The concept outlines the vision of a *smart factory*, which is characterized by the *complete networking of all production parts and processes: real time control via ITC and the increased use of robots*, which control themselves, are developments

that should contribute to greater productivity through resource efficiency. The shift is already under way and the concept of Industry 4.0 is shaping the digital discourse in Germany (Buhr, 2015).

The concept of a *smart factory* makes the rather abstract idea of Industry 4.0 easier. This is where the *Internet of Things* comes into play, i.e. nonhuman parties communicating with each other. That could be a plant sending out a signal that it needs new material and the smart factory automatically and independently forwarding this information. The communication between these “*things*” takes place through the Internet in a smart way. This is the core point about Industry 4.0 – the *Process Knowledge Automation*. The Process Knowledge Automation resolves and enables the problem that work-pieces don’t have the technical capabilities to communicate on their own transforming physical systems into “*cyberphysical systems*” (CPS), whereby the work-piece is the physical element and the Knowledge Automation is the digital element. The role of humans in CPPS (Cyber-Physical Production Systems), however, should not be disregarded, as highlighted in (Nelles et al., 2016).

Industry 4.0 refers to the technological evolution from embedded systems to cyber-physical systems (CPS) capable of creating intelligent object networking and independent process management across real and virtual worlds (MacDougall, 2014). According to Gilchrist (2016), CPS integrates computation, networking, and physical processes allowing embedded computers and networks to monitor and control the physical processes.

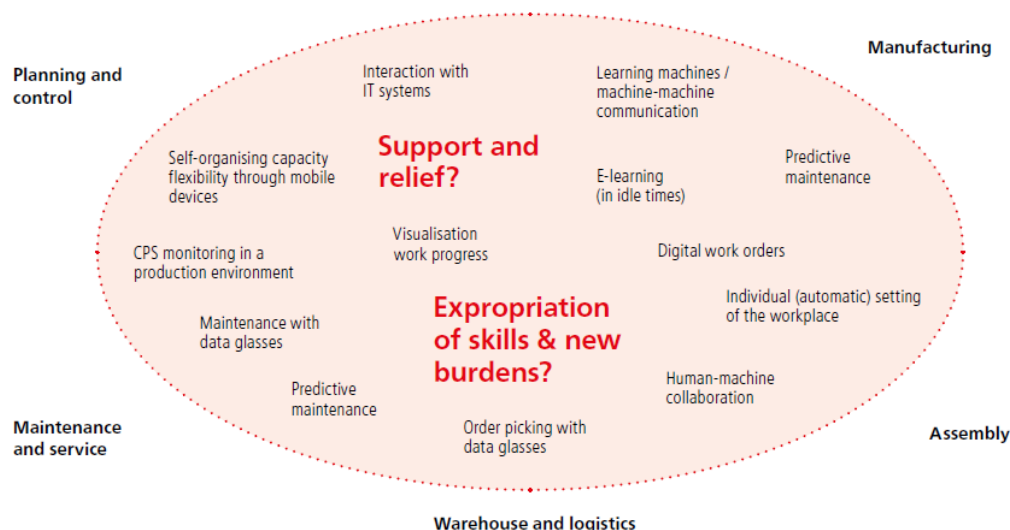
The term Industry 4.0 is used to define a set of technology transformations in systems and products design, production and distribution and to describe the productive process organization that are based on communicating technologies and devices. The industrial production has no longer to be considered as a sequence of separated phases, but as an integrated flow, that is made possible by digital technologies. The 5 pillars of Industry 4.0 are (Acimit,2017):

- 1.*Speed*: to reduce the time to market through innovation cycles and short product development
- 2.*Quality*: to improve the processes and to reduce the waste through the real time monitoring of the production
- 3.*Flexibility*: to make the offer more dynamic through the mass-customization in the production phases
- 4.*Security*: to optimize the security issues in order to avoid inactivity periods and cyber attacks
- 5.*Efficiency*: to increase the productivity with technologies and more intelligent services

### 3. Components of the Fourth Industry Revolution

One of the key objectives of Industry 4.0 is to combine *two principles* that are actually opposites, strictly speaking – *production line manufacturing and custom manufacturing* – in a smart environment referred to as *smart factory* (Grieco et al.,2017). Smart factories will lead to changes in manufacturing and logistics processes (see figure 2). Initially, creating a perfectly functioning material flow systems is possible. Secondly, all processes between supplier and customer may be re-organized in terms of productivity (Görçün,2018).

*Automation, robotics systems and autonomous behaviour of machines* are the most significant factors of the smart production systems. “This is where the *Internet of Things (IoT)* comes into play, i.e. nonhuman parties communicating with each other. That could be a plant sending out a signal that it needs new material and the smart factory automatically and



**Figure 2. Human-Machine Application**  
(Fraunhofer IAO, 2013; Buhr 2015)

independently forwarding this information. The communication between these “things” takes place through the *Internet* in a smart way. This is the core point about Industry 4.0 – the Process Knowledge Automation (Grieco et al., 2017). Thanks to IoT, physical objects are seamlessly integrated into the information network where they can become active participants in business processes (Shrouf et al., 2014).

*Cyber physical systems* can be “defined as a technological system. It can give an opportunity for monitoring, and controlling all processes of the value chain simultaneously. This system can also be used for *computation, optimization, and communication*. With the use of these systems, all operations occurring in value chains can be optimized. These systems may lead to integration between physical industrial elements such as machines and cyber technologies. The integration of physical machines and cyber technologies can be possible with these cyber-physical systems. In this way, machines used in production processes can become more intelligent as well as factories and they can be defined as the smart system and the smart factories. Unlike traditional embedded systems designed as stand-alone devices, the focus in CPS is on networking several devices (Lee, 2008).

Recently, *big data* becomes a term on everyone’s tongue. “Under the Industry 4.0 era, “intelligent analytics and cyber-physical systems are teaming together to realize a new thinking of production management and factory transformation. Using appropriate *sensor installations, various signals* such as vibration, pressure, etc. can be extracted. In addition, historical data can be harvested for further data Mining” (Lee et al., 2013).

#### 4. Reflections of Industry 4.0 on Textile & Fashion Manufacturing

Industry 4.0 is the vision of increasing *digitisation of production*. The concept describes how the so-called Internet of things, data and services will change in future production, logistics and work processes (Acatech, 2014).

The fourth industrial revolution will begin in a very short time and will lead to a change in industrial, *social and economic* lives of people. This may create new industrial relations between *capital and labour* (Görçün, 2018). Industry 4.0 has recently become a frequent topic at a number of expert conferences and even in the mass media. It is typically discussed in the context of process *productivity improvement* but also in relation to the *fear of job losses*. The situation is unprecedented where for the first time in history white-collar jobs are under threat and high-qualification professional class faces the prospect of economic decline (Švingerová & Melichar, 2017).

Over the last few years there have been gradual changes towards the new technology, but from now on, there is already a difference in the pace at which things need to change. *Progress awaits no one, and all that is new must be absorbed as fast as possible.* Virtual organizations are at the point in which all the strategies must be reorganized in order to keep up with the new demands coming from Industry 4.0: *better knowledge, better and new specializations, soft skills, management and communication skills* (Costache et al., 2017).

The forth industrial revolution will transform the economic paradigm and the mechanisms for *creating value* that underpin it. Manufacturing has, in effect, switched from a mindset of mass production to one of mass customization. No longer is it based on scale and volume effects but on *flexible and localized production* situated close to centers of demand. It manufactures "*on demand*" and *no longer creates inventory*, instead dynamically adapting itself to demand. It is more *predictive and auto-corrective* and it involves *less trial and error*. Its logic is now *focused not on the product but on usage*, and it has also switched from a rigid form of labor organization, inherited from Taylorism, to a flexible form – enhancing the appeal of work as a result. It potentially represents a complete *overhaul of the economic rationale* behind business (Berger, 2016).

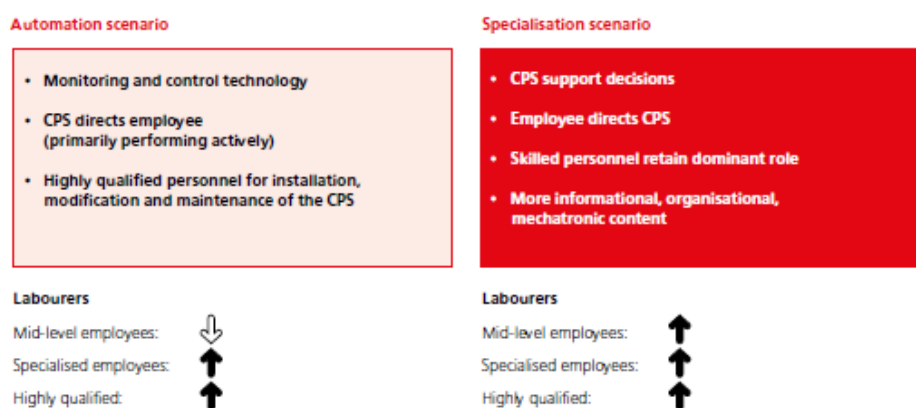
Due to the intensive use of labor and the rising total costs, competitive capacity of world's manufacturing industry weakens. On the other hand, total added value which created in the value chains may be reduced as a result of increased costs. Industry 4.0 focuses on manufacturing activities related to the automotive industry. Actually, the need for new production techniques and approaches is much more in textile industry. Industry 4.0 will have a direct effect on producers and their labor force as well as on companies supplying manufacturing (Rüßmann et al., 2015).

Contrary to the discussions of the 1980s, today it is no longer about *human versus machine*. Rather, most of the scenarios revolve around a more complex relationship between humans and machines (Kurz, 2014; Ganz, 2014):

1. The *automation scenario*: systems direct humans. Monitoring and control tasks are taken over by technology. It prepares and distributes information in real time. Employees respond to the needs of cyber- physical systems (CPS) and take on primarily executive tasks. The abilities of lesser skilled workers are thereby devalued (see figure 7).

2. The *hybrid scenario*: monitoring and control tasks are performed via cooperative and interactive technologies, networked objects and people. The demands on employees increase because they have to be considerably more flexible.

3. The *specialisation scenario*: people use systems. CPS is a tool to support decision-making. The dominant role of the qualified workers is maintained (see figure 3).

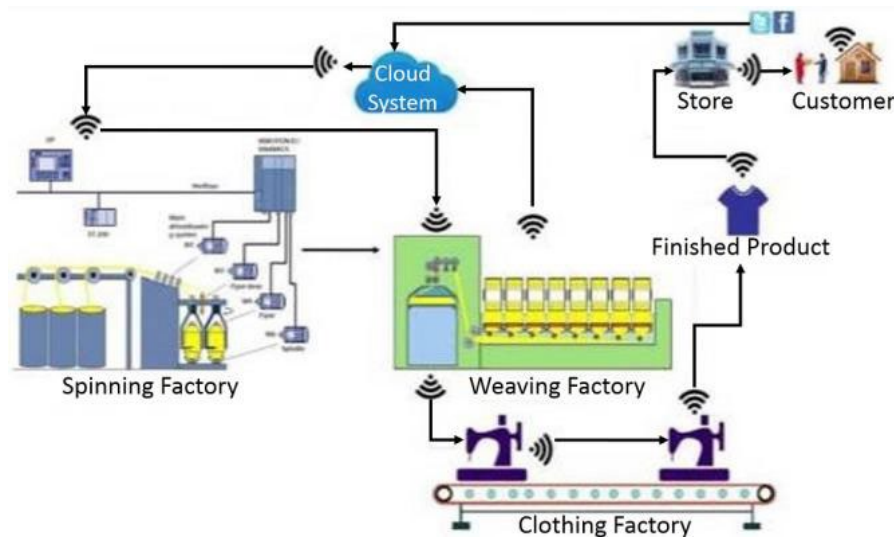


**Figure 3.** Qualification Requirements for industry 4.0  
(Ganz 2014; Buhr 2015)



The guiding theme of the developments outlined above seems to be: “anything that can be digitised will be digitised”. Accordingly, the scenarios of future developments are pretty ambitious. The conceptions of how Industry 4.0 is to affect companies and sectors, economies and societies differ greatly. They can be summarised, however, into three perspective (Stephan, 2014; Buhr, 2015):

1. *Disruption*: Industry 4.0 enables completely new business and value creation models.
2. *Progress*: Industry 4.0 solves the problems of today with the technologies of tomorrow.
3. *Destruction*: Industry 4.0 is not new and lacks innovative approaches.



**Figure 4.** Integration among value chain process and IoT  
(Görçün, 2018)

One of the most profitable markets in the world is the *fashion and lifestyle industry* and it is defined to be a billion-dollar industry employing millions of professions all around the world. Fashion industry is one of the most dynamic supply chains in the modern world and due to this nature there are new challenges and many opportunities presented (see figure 4) With the fashion industry going global, consumers all over the world have been affected by this fast and constantly evolving industry (Bhardwaj & Fairhurst, 2010) disrupting consumer behaviour in the global market (Majeed & Rupasinghe, 2017).

In textile & fashion industry, “observed increases in the level of labor use may cause increase in total costs. Also, more errors in manufacturing process may occur because of intensive labor use. More importantly, the new dominant role of customers has been affecting the manufacturing processes of the textile industry. Standard products are not preferred by today’s customers. Usually, they demand personalized and customized products. In the near future, all textile industries will have to keep pace with these demands. Consequently, changes in manufacturing processes will be inevitable in the textile industry. In the near future, key technologies related to smart factories such as automation, machine to machine communication systems, and robotics technology will be essential for the improvement of the textile value chains as well as textile manufacturing systems (Görçün, 2018).

Throughout the history of fashion, many inventions have gone through a successful innovation process and were widely marketed thanks to good functionality and the ability to create value. Innovation is definitely important for the future development of fashion industry in the form of competitive businesses. Over time, the entrepreneurs’ role in the economy and their contribution to economic change, as well as their creativity, innovation, entrepreneurial and managerial aspects changed (Lowe & Mariott, 2006). Fashion brands for their part strive for innovation, differentiation and appeal. This is because the fashion business is essentially a *forward-thinking sector* and one of the core characteristics of fashion brands is innovation which has been an essential aspect of fashion business for centuries (Okonkwo, 2007). For this reason, we can say that industry 4.0 may support textile &



fashion enterprises to solve their structural specific problems. Designing innovative processes according to industry 4.0 and technological advances, especially related to production and logistics, may become more *flexible, rapid and agile* in textile value chains. In this way, textile & fashion industries can give *quick and effective responses* to the customer's needs as a result of the new production and logistics process designs. Using high technology in production and logistics processes realizes transformation of the industry. Therefore, textile & fashion value chains should be re-designed and re-structured according to the new requirements and paradigms of the fourth industrial revolution in Turkey.

## 5. Conclusion

Textile & fashion industry should be awake to the new paradigms on the brink of the fourth industrial revolution. In the future, becoming a *smart factory* will be the only way to meet specific customized-demands. In this way, textile & fashion industry can solve its structural problems arising from intensive workforce and market ambiguities. Besides, they can increase the efficiency and the productivity in the whole value chain by providing cooperation and coordination of the system.

## 6. References

- Acatech; Arbeitskreis Smart Service Welt (2014). *Smart Service Welt:Umsetzungsempfehlungen für das Zukunftsprojekt – Internetbasierte Dienste für die Wirtschaft*, Berlin.
- Acimit (2017). Industry 4.0: The New Challenge for the Italian Textile Machinery Industry Rina Consulting Executive Summary. Available online at: <http://www.acimit.it/DOC/Executive17-Ing.pdf>
- Bhardwaj, V. & Fairhurst, A. (2010).Fast fashion: response to changes in the fashion industry. *The International Review of Retail, Distribution and Consumer Research*, 20, 165-173.
- Brynjolfsson, E. & McAfee, A. (2014).*The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies*, New York.
- Buhr, D. (2015). *Social Innovation Policy for Industry 4.0*. The Friedrich-Ebert-Stiftung, Division for Social and Economic Policies.
- Costache, S, A. G., Popa, C. L. and Dobrescu, T. G.& Cotet, C. E. (2017). The Gap Between the Knowledge of Virtual Enterprise Actor and Knowledge Demand of Industry 4.0, Proceedings of the 28th DAAAM International Symposium, pp.0743- 0749, B. Katalinic (Ed.), Published by DAAAM International, ISBN 978-3-902734-11-2, ISSN 1726-9679, Vienna, Austria DOI: 10.2507/28th.daaam.proceedings.105
- Fraunhofer Institut für Arbeitswirtschaft und Organisation (IAO).(2013). Produktionsarbeit der Zukunft: Industrie 4.0, Stuttgart.
- Ganz, W. F. (2014). Welche Rolle spielen die Dienstleistungen in der Industrie 4.0? Präsentation anlässlich des FES-Fachgesprächs Industrie 4.0, 8.10.2014, Berlin.
- Gilchrist, A. (2016). *Industry 4.0 The Industrial Internet of Things*. Berkeley, CA: Apress.
- Görçün, Ö. F. (2018). The Rise of Smart Factories in the Fourth Industrial Revolution and Its Impacts on the Textile Industry. *International Journal of Materials, Mechanics and Manufacturing*. 6 (2), 136-141.
- Plattform Industrie 4.0 (2014). Industrie 4.0: Whitepaper FuE-Themen. Available online at: [http://www.plattform-i40.de/sites/default/files/Whitepaper\\_Forschung%20Stand%203.%20April%202014\\_0.pdf](http://www.plattform-i40.de/sites/default/files/Whitepaper_Forschung%20Stand%203.%20April%202014_0.pdf)
- Kellogg, A.T. (2002). *In An Influential Fashion: An Encyclopedia of Nineteenth-and Twentieth-Century Fashion Designers and Retailers Who Transformed Dress*, USA: Greenwood.
- Kurz, C. (2014). *Mensch, Maschine und die Zukunft der Industrie- arbeit, Vortrag auf der Fachkonferenz Münchner Kreis “Maschinen entscheiden: vom Cognitive Computing zu autonomen Systemen”*, Munich.
- Lee, J., Kao, H. &Yang, S. (2014). Service innovation and smart analytics for Industry 4.0 and big data Environment. *Procedia CIRP* 16, 3 – 8.

Lee, E. (2008). Cyber physical systems: Design challenges. University of California, Berkeley Technical Report No. UCB/EECS-2008-8. Available online at: <http://www.eecs.berkeley.edu/Pubs/TechRpts/2008/EECS-2008-8.html>

Lee, J., Lapira, E., Bagheri, B., & Kao, H. A. (2013). Recent advances and trends in predictive manufacturing systems in big data environment. *Manufacturing Letters*, 1(1), 38-41.

Lowe, R. & Marriott S. (2006). Enterprise: Entrepreneurship and Innovation Concepts, Contexts and Commercialization. Oxford: BH (Butterworth-Heinemann) Elsevier.

MacDougall, W. (2014): Industry 4.0. Smart Manufacturing for the Future. Germany Trade & Invest. Available online at: [https://www.gtai.de/GTAI/Content/EN/Invest/\\_SharedDocs/Downloads/GTAI/Brochures/Industries/industrie4.0-smart-manufacturing-for-the-future-en.pdf](https://www.gtai.de/GTAI/Content/EN/Invest/_SharedDocs/Downloads/GTAI/Brochures/Industries/industrie4.0-smart-manufacturing-for-the-future-en.pdf)

Rüßmann, M., Lorenz, M., Gerbert, P., Waldner, M., Justus, J., Engel, P. & Harnisch M. (2015). Industry 4.0: Future of the Productivity. Boston Consulting Group's BCG Perspectives, 21. Available online at: [http://www.bcg.com.cn/export/sites/default/en/files/publications/reports\\_pdf/BCG\\_Industry\\_40\\_Future\\_of\\_Productivity\\_April\\_2015\\_ENG.pdf](http://www.bcg.com.cn/export/sites/default/en/files/publications/reports_pdf/BCG_Industry_40_Future_of_Productivity_April_2015_ENG.pdf)

Majeed, M. A. A. & Rupasinghe, T. D. (2017). Internet of Things (IoT) Embedded Future Supply Chains for Industry 4.0: An Assessment from an ERP-based Fashion Apparel and Footwear Industry. *International Journal of Supply Chain Management*, 6(1), 25-40.

Nelles, J., Kuz, S., Mertens, A. & Schlick C. M. (2016). Human-centered design of assistance systems for production planning and control: The role of the human in industry 4.0 in Industrial Technology (ICIT), 2016 IEEE International Conference, 2099–2104

Okonkwo, U. (2007). *Luxury Fashion Branding: Trends, Tactics, Techniques*, New York: Palgrave Macmillan.

Shrouf, F., Ordieres, J. & Miragliotta, G. (2014). Smart factories in Industry 4.0: A review of the concept and of energy management approached in production based on the Internet of Things paradigm," in Proc. 2014 IEEE International Conference on Industrial Engineering and Engineering Management, 697-701.

Svingerova, M. & Melichar, M. (2017). Evaluation of Process Risks in Industry 4.0 Environment, Proceedings of the 28th DAAAM International Symposium, pp.1021-1029, B. Katalinic (Ed.), Published by DAAAM International, ISBN 978-3-902734-11-2, ISSN 1726-9679, Vienna, Austria DOI: 10.2507/28th.daaam.proceedings.142



# **The Contribution of Public Relations Studies to Corporate Reputation in Health Care Institutions: Patient Satisfaction Study Sample**

Hatice Hale Bozkurt

## **1. Introduction**

Johanssen defines image as "the combination of all attitudes, knowledge, desires, feelings etc. associated with a certain opinion object", whereas Jung considers image as a thought towards an object, partly corresponding to the actual reality and partly representing the subject's own stance (Okay, 2000, s.255). Image is an outcome of beliefs arising from a person's first impression and perception pertaining to an object. Image is judgement impression or evaluation about a person or an organization finalized after a process of learning and perceiving. Corporate image, in its simplest terms, is impression based on knowledge and experience of an institution.

According to another definition, corporate reputation is the combination of emotional and rational assessments by an organization or a group of people regarding a certain institution. (Peltekoglu, 2007, s.584).

Corporate image is the visualization of people's opinions formed when they contact a certain institution directly. It is an overall evaluation consisting of beliefs and feelings about this institution. A corporate's image is formed by groups it is in contact with such as the public and its target audience and this image may undergo changes in time.

Corporate image, which could be expressed as the sum of corporate outlook, corporate communication and corporate attitude, targets both internal and external audiences and carries out important functions like credibility and creating and maintaining trust. The image to be created inside and outside the organization should be in line with the reality so that it is convincing. In this respect, corporate image, consisting of a combination of these three elements, plays important roles for all upper level communication policies; thus it should not be viewed simply as a special means of communication (Peltekoglu, 1997, ss.126-127). Corporate identity comprises symbols and expressions like the publicized name to promote the organization, its logo and advertisement motto.

Corporate image contains all visual, verbal and behavioral elements constituting the organization (Howard, 1998, s.4) To define shortly, when the connection between corporate identity and image is examined, corporate identity is the total of intentional or unintentional messages given, while corporate image could be considered as the public perception resulting from these messages (Theaker, 2006, s.137).

Corporate image, described as the manner an organization is perceived by individuals, is acknowledged to constitute one of the premises of success in competition. Accordingly, institutions with favorable images are viewed as respectable, trustworthy and reasonable to work together with promising prospects on the part of target audiences. (Bakan, 2005, s.4).

The primary path to success in competition-based sectors passes through the creation of a favorable corporate image to achieve customer satisfaction.

Reputation conceptually symbolizes trust, respectability and credibility (Kadibesegil, 2006, s.118) As for corporate reputation, it encompasses values regarding a person's perception of the organization's image like authenticity, honesty, responsibility and integrity. Corporate reputation also includes corporate identity and elements of corporate image.

Those who gain reputation in the society have more occupational prospects and opportunities to utilize wider resources (Solmaz, 2011, s.89).

## **2. Corporate Image and Reputation in Health Care Institutions**

Corporate reputation and image have a special meaning for medical institutions and hospitals. Because consumer choices and customer satisfaction have priority since 'human health' is the primary concern,

corporate reputation and image management in these institutions become even more significant (Satır, 2006, s.58).

Patients prioritize corporate image in their choice of hospital or similar health care institutions; therefore, a medical organization is in a position to measure how it is perceived by the public and what its image is like.

Effective execution of hospital services, minimization of problems faced, improving hospital efficiency and providing quality service are the major factors that have a bearing on the choices of the target audience.

### **3. Public Relations Studies In Health Care Services**

Health care services are generally efforts for health protection and treatment of diseases (Kaya, 2007, s.48).

One of the application fields of public relations is studies on identity and image. Corporate identity, in order to distinguish a certain institution from similar ones or its rivals, could be defined as an entity also made up of philosophy, design, communication and behavior as well. (Okay and Okay, 2002, s.607).

One of the principal application fields of public relations is the management of corporate reputation. Corporate reputation, which is an abstract concept, is an integrative perception that depends on a variety of factors. Corporate reputation is made up of the whole activities made and not made regarding the target audience; therefore, reputation management involves the conscious management of all elements within the organization including activities, employees, partners and all the other constituents. A favorable reputation provides advantages for organizations in their relations with target audiences. For example, organizations having reputable reputation may enjoy more flexible conditions in their dealings with financial circles, they can increase prices of their products and services more comfortably or they might be able to suffer minimum losses during a crisis thanks to their favorable profile in the eyes of the target audiences (Yuksel, 2010, ss.119-120). To ensure this, organizations and institutions must constantly enhance, support and protect their reputation. Health care institutions with favorable reputation are supported by the citizens too and any undesirable circumstances become easier to cope with thanks to this reputation.

One of the primary goals of public relations is to form a positive image of organizations in the minds of the public, increase the value of organizations and provide a general trust, understanding and contribution to the organizations. For the realization of this purpose, a very long period during which good activities are carried out needs to pass (Asna, 1993, s.15).

As far as health care institutions are concerned, public relations “could be defined as the combination of all planned, continuous and communication-focused efforts aiming to establish mutually healthy, true and reliable relations with domestic and foreign customer groups and organizations, improve these connections, create favorable impressions on the public and unite with the society” (Tengilimoglu, 2001, s.305).

Key words having similar attributes which are used in different definitions regarding public relations need to be remembered (Wilcox, et al., 2005, ss.6-7):

a. Planned from the Beginning to the End: Public relations activities are performed willingly. They are designed to be influenced, gain understanding, provide information and collect feedback from those who have been influenced.

b. Planned: Public relations activities are organized activities. Various problems are solved, logistic components associated with activities carried out at a certain time are also taken into consideration. It is a well-arranged study including research and analysis.

c. Performance: Effective public relations is based on an individual's or an institution's performance and real policies. If an institution is not a good employer or not sensitive to the society's interests and benefits, the amount of goodwill and support public relations could create cannot be increased.

d. Public Welfare: The reason why a public relations activity is carried out is to serve public welfare and providing benefits for the organization is not easy at all. Ideally, public relations activity requires sequencing between the interests of the organization and the target audience.

e. Two-Sided Communication: In public relations, distribution of information materials and collecting feedback are equally important.

f. Management Function: Public relations is an essential element in the decisions of the senior management. After a decision is made, public relations involve not only providing information but also consultation and solution to problems faced.

Under today's conditions, it is impossible for an organization to survive without cooperating with and listening to the views of its target audience just as a government cannot hope to be long-lived within a sound democracy without concern for the public opinion and voter support. (Peltekoglu, 2007, s.167).

The function that gives rise to this bridge of understanding between the hospital management and the target audience is public relations (Reichman 1968, ss.42-45).

The executives of health care institutions have begun utilizing various public relations activities in order to increase service efficiency and ensure patient satisfaction.

Today, together with advances and changes in health care, patients and relatives pay attention to the quality of service received, attitude of the medical staff, sufficiency of the hospital's physical conditions and the hospital's public relations activities carried out in their hospital choice.

The purpose of the study is to draw attention to the significance of public relations activities carried out in health care institutions and determination of which variables are more effective in patients' hospital choice. Today's changing and developing market conditions force every institution to keep up with the new emerging conditions. Institutions failing to keep pace with these changes and developments are faced with very difficult circumstances in every respect.

#### 4. Method

In accordance with the study, a survey was conducted on citizens and relatives receiving service from Adnan Menderes University Hospital in order to determine the effect of public relations activities in hospitals on the patients' hospital choice. The study is deemed important in a number of aspects which are: reasons behind the hospital choice of patients who are treated, importance of public relations activities in hospital choice, to what extent public relations activities have a bearing on the individuals, determination of what communication channels have been used for information and whether variables impacting on hospital choice differ depending on the socio-demographic background of patients. Limitations in the research,

This study is limited to the determination of variables influencing the hospital choice of patients

In the research, the survey was used as a means of data collection and it was conducted in February 2013.

The scope of the study is limited to a total of 409 people who were individuals and relatives older than 18 receiving service from Adnan Menderes University Hospital. These individuals varied greatly from those who received polyclinic service to those who were hospitalized and their relatives.

The conductors of the survey were Health Care Vocational School Nursing Department students. Since these survey conductors were actually nursing interns working in the institution, there is a possibility that patients may well have had a more positive approach to the questions asked.

In laying out the study, there was an effort to draw a general frame within public relations applications and it was emphasized that public relations are a crucial phenomenon with regard to health care sector in today's conditions. When preparing survey questions, the study made use of the scale used by Yalcın Kırdar in his study titled The Role of Public Relations Image Creating in Health Services: A Sample Patient Satisfaction Survey, which was published in 2007, in Health Marketing Quarterly. The survey form was conducted on citizens who were aged above 18.

In this study, 6 criteria were formed to measure the satisfaction level of the patients who benefited from the health care service provided. These are:

The degree to which patient expectation is met with respect to the hospital's capabilities of medical examination and health care facilities along with surrounding physical conditions (heating, illumination, landscape, car park, room service, medical equipment, number of beds, cleanliness, outer appearance etc.),

Patient satisfaction with regard to doctors' and nurses' politeness, attitudes and behaviors in their conduct with patients and relatives,

Patients' standby time for treatment and perceptions on bureaucratic procedures,

The degree to which the hospital management instilled the corporate culture concept of "us" instead of "I" through public relations activities,

The sufficiency of the hospital's arrangement of public health and information campaigns and the satisfactoriness of the guiding publications like brochures, pamphlets and press bulletins.

Whether this hospital could be recommended to another patient who needs treatment.

These benchmarks in the survey were then examined on the basis of three independent variables. These three independent variables were sex, monthly family income and number of hospital visits.

- Sex: In two different categories as men and women.

- Monthly family income: In 5 different categories which were: Less than 500\$,  $500\$ < X < 1000\$$ ,  $1000\$ < X < 2500\$$ ,  $2500\$ < X < 4000\$$ , 4000\$ and above.

- Number of hospital visits: In 3 different categories which were: First experience, Between 2-4 and More than 4.

The following hypotheses were accordingly prepared considering these independent variables.

H1: Perceptions concerning the survey items "physical services, doctor and staff services, bureaucratic procedures, hospital public relations activities and recommendation to others" show significant differences with respect to sex.

H2: Perceptions concerning the survey items "physical services, doctor and staff services, bureaucratic procedures, hospital public relations activities and recommendation to others" show significant differences with respect to monthly income.

H3: Perceptions concerning the survey items "physical services, doctor and staff services, bureaucratic procedures, hospital public relations activities and recommendation to others" show significant differences with respect to number of hospital visits.

Sub-hypotheses were dealt with a total of 18 different hypotheses within the framework of the above mentioned 6 different categories to three independent variables. All hypotheses and sub-hypotheses were separately tested.

The data collected does not exhibit a normal distribution since no restrictions were made on the hospital's health care units and all patients of medical units providing health care took part in the survey. Therefore, the following tests were used for the three hypotheses:

- MANN-WHITNEY test for (H1), which was made according to the sex variable and sub-hypotheses and because it comprised 2 independent groups and did not have normal distribution.

- KRUSKAL-WALLIS test for (H2), which was made according to the monthly income variable and sub-hypotheses and because it comprised 5 independent groups and did not have normal distribution.

- KRUSKAL-WALLIS test for (H3), which was made according to the number of hospital visits variable and sub-hypotheses and because it comprised 3 independent groups and did not have normal distribution.

Our survey was evaluated by forming a random sample from patients receiving service from the hospital.

Following a short explanation about the content in the survey, there was the section with 3 independent variables covered in the personal information section and questions with 6 dependent variables. In the design of dependent variable questions, a 5-point Likert scale was used. This Likert scale was as follows:

- 1- Totally Disagree
- 2- Partly Disagree

- 3- No Idea
- 4- Partly Agree
- 5- Totally Agree

Analysis was made regarding the perceptions of patients about physical services, doctor and staff services, bureaucratic procedures, hospital public relations activities and recommendation to others. According to the results of frequency analysis concerning the patients receiving health care services from Adnan Menderes University Hospital, 47,2 % (193 individuals) are females and 51,8 % (212 individuals) are males. 4 persons did not wish to answer this question. As for earned monthly income, the figures were: 16,4 % (67 individuals) less than 500\$, 38,1 % (156 individuals) 500\$<X<1000\$, 26,7 % (109 individuals) 1000\$<X<2500\$, 11,2 % (46 individuals) 2500\$<X<4000\$, 7,6 % (31 individuals) more than 4000\$. However, this last 7,6 % group was included in the next lower income group and assessed accordingly.

According to the analysis on number of hospital visits, for 13,7 % (56 individuals), it was their first visit, 21,8 % (89 individuals) were having their 2<sup>nd</sup> to 4<sup>th</sup> experiences, and 56,5 % (231 individuals) had already been there more than 4 times. 33 people (which accounted for 8,1 %) did not wish to answer this question and left it blank.

## 5. Findings

The frequency analysis of the 6 criteria (variables) used in this study is as follows:

The majority of survey participants (147 people) opted for “Totally Agree” and expressed great satisfaction for “The hospital’s facilities for medical examination, health care and food as well as its physical conditions like heating, illumination, environmental planning, car park, room service, medical equipment, number of beds, cleanliness and outer appearance”. This accounts for 35,9 % of given answers.

The majority of survey participants (184 people) opted for “Totally Agree” and expressed content for “doctors’ and nurses’ politeness, attitudes and behaviors in their conduct with patients and relatives”. This accounts for 45 % of given answers.

The majority of survey participants (110 people) opted for “Totally Agree” and acknowledged that “Patient standby time and bureaucratic procedures did not take long”. This accounts for 26,9 % of given answers. Meanwhile, it was noteworthy that 104 people expressed their discontent and opted for “Totally Disagree”.

The majority of survey participants (124 people) opted for “Partly Agree” and expressed doubt on “whether they feel the hospital management was able to instill the corporate culture concept of “us” instead of “I” through public relations activities”. This accounts for 30,3 % of the respondents.

The majority of survey participants (127 people) opted for “No Idea” for the question concerning “The sufficiency of the hospital’s arrangement of public health and information campaigns and the satisfactoriness of the public relations applications in the form of guiding publications like brochures, pamphlets and news in the media”. This accounts for 31,1 % of the respondents.

The majority of survey participants (181 people) opted for “Totally Agree” and suggested that “They would recommend this hospital to a patient seeking treatment”. This accounts for 44,3 % of the respondents.

H1: Perceptions concerning the survey items “Physical services, doctor and staff services, bureaucratic procedures, in-hospital public relations activities, out-hospital public relations activities and recommendation to others” show significant differences with respect to sex. These tests were finalized using Mann-Whitney U Test.

Sub-Hypotheses,

When we examine the survey question “The hospital’s facilities for medical examination, health care and food as well as its physical conditions like heating, illumination, environmental planning, car park, room service, medical equipment, number of beds, cleanliness and outer appearance meet my expectations” with respect to sex, we reach a conclusion like the following;

Mann-Whitney U value 1981, Wilcoxon W value 38151, z value -0,217 and is Asymp. The Sig. (2-tailed) value is 0 in (H11) hypothesis. Taking the answers of survey participants into consideration, the



statistically significant difference was found to be ( $p < 0.05$ ). (H11) hypothesis was accepted. Males (2,14) were perceived to be more positive than females (1,92) in comparison.

When we examine the question "Doctors' and nurses' politeness, attitudes and behaviors in their conduct with patients and relatives are satisfactory" with respect to sex, we come to a conclusion like the following;

Mann-Whitney U value 1854, Wilcoxon W value 37070, z value -1,484 and is Asymp. The Sig. (2-tailed) value is 0 in (H12) hypothesis. Taking the answers of survey participants into consideration, the statistically significant difference was found to be ( $p < 0.05$ ). (H12) hypothesis was accepted. Males (2,36) were perceived to be more positive than females (1,99) in comparison.

When we examine the question "Patient standby time and bureaucratic procedures do not take too long" with respect to sex, we come to a conclusion like the following;

Mann-Whitney U value 1858, Wilcoxon W value 37155, z value -1,473 and is Asymp. The Sig. (2-tailed) value is 0 in (H13) hypothesis. Taking the answers of survey participants into consideration, the statistically significant difference was found to be ( $p < 0.05$ ). (H13) hypothesis was accepted. Males (2,38) were perceived to be more positive than females (1,96) in comparison.

When we examine the question "It is felt that the hospital management instilled the corporate culture conception of "us" instead of "I" through public relations activities" with respect to sex, we come to a conclusion like the following;

Mann-Whitney U value 17605, Wilcoxon W value 34810, z value -1,502 and is Asymp. The Sig. (2-tailed) value is 0 in (H14) hypothesis. Taking the answers of survey participants into consideration, the statistically significant difference was found to be ( $p < 0.05$ ). (H14) hypothesis was accepted. Males (2,14) were perceived to be more positive than females (1,92) in comparison.

When we examine the question "The hospital's guiding publications, prepared as public relations activities such as brochures, pamphlets and appearances in media news, are sufficient and its arrangement of public health and information campaigns are satisfactory" with respect to sex, we come to a conclusion like the following;

Mann-Whitney U value 19917, Wilcoxon W value 42283, z value -0,298 and is Asymp. The Sig. (2-tailed) value is 0,002 in (H15) hypothesis. Taking the answers of survey participants into consideration, the statistically significant difference was found to be ( $p < 0.05$ ). (H15) hypothesis was accepted. Males (2,12) were perceived to be more positive than females (1,96) in comparison.

When we examine the question "I would recommend this hospital to a patient who seeks treatment" with respect to sex, we come to a conclusion like the following;

Mann-Whitney U value 19700, Wilcoxon W value 37655, z value -0,047 and is Asymp. The Sig. (2-tailed) value is 0,001 in (H16) hypothesis. Taking the answers of survey participants into consideration, the statistically significant difference was found to be ( $p < 0.05$ ). (H16) hypothesis was accepted. Males (2,11) were perceived to be more positive than females (1,91) in comparison.

Household income section,

H2: The survey items pertaining to "Patients' perceptions as to physical services, doctor and staff services, bureaucratic procedures, in-hospital public relations activities, off-hospital public relations activities and recommendation to others" indicate significant differences with respect to monthly family income.

When "The hospital's facilities for medical examination, health care and food as well as its physical conditions like heating, illumination, environmental planning, car park, room service, medical equipment, number of beds, cleanliness and outer appearance meet my expectations" was examined in terms of monthly family income, according to Kruskal-Wallis Test result, sig. value is 0,593 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When "Doctors' and nurses' politeness, attitudes and behaviors in their conduct with patients and relatives are satisfactory" was examined in terms of monthly family income, according to Kruskal-Wallis Test result, sig. value is 0,447 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “Patient standby time and bureaucratic procedures do not take too long” was examined in terms of monthly family income, according to Kruskal-Wallis Test result, sig. value is 0,619 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “It is felt that the hospital management instilled the corporate culture conception of “us” instead of “I” through public relations activities” was examined in terms of monthly family income, according to Kruskal-Wallis Test result, sig. value is 0,675 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “The hospital’s guiding publications, prepared as public relations activities such as brochures, pamphlets and appearances in media news, are sufficient and its arrangement of public health and information campaigns are satisfactory” was examined in terms of monthly family income, according to Kruskal-Wallis Test result, sig. value is 0,032 and our sub-hypothesis does not show a significant difference, that is, we do not accept our hypothesis (tested according to sig. level value 0,05).

When “I would recommend this hospital to a patient who seeks treatment” was examined in terms of monthly family income, according to Kruskal-Wallis Test result, sig. value is 0,317 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

Number of hospital visits,

H3: The survey items pertaining to patients’ perceptions as to “physical services, doctor and staff services, bureaucratic procedures, hospital public relations activities and recommendation to others” indicate significant differences with respect to number of hospital visits.

When “The hospital’s facilities for medical examination, health care and food as well as its physical conditions like heating, illumination, environmental planning, car park, room service, medical equipment, number of beds, cleanliness and outer appearance meet my expectations” was examined in terms of number of hospital visits, according to Kruskal-Wallis Test result, sig. value is 0,381 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “Doctors’ and nurses’ politeness, attitudes and behaviors in their conduct with patients and relatives are satisfactory” was examined in terms of number of hospital visits, according to Kruskal-Wallis Test result, sig. value is 0,440 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “Patient standby time for medical examination and bureaucratic procedures do not take too long” was examined in terms of number of hospital visits, according to Kruskal-Wallis Test result, sig. value is 0,086 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “It is felt that the hospital management instilled the corporate culture conception of “us” instead of “I” through public relations activities” was examined in terms of number of hospital visits, according to Kruskal-Wallis Test result, sig. value is 0,995 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “The hospital’s guiding publications, prepared as public relations activities such as brochures, pamphlets and appearances in media news, are sufficient and its arrangement of public health and information campaigns are satisfactory” was examined in terms of number of hospital visits, according to Kruskal-Wallis Test result, sig. value is 0,316 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

When “I would recommend this hospital to a patient who seeks treatment” was examined in terms of number of hospital visits, according to Kruskal-Wallis Test result, sig. value is 0,565 and our sub-hypothesis shows a significant difference, that is, we accept our hypothesis (tested according to sig. level value 0,05).

In today’s intense competition environment, the success of organizations producing goods and services depends on bringing certain distinguishing qualities into the forefront as well as engaging in activities aimed at the target audience to create trust and sympathy, which requires a favorable corporate image to be built in the minds of the public. A positive corporate image is one of the most

essential tools to foster customer satisfaction and enhance both familiarity and affinity with the target audience while signifying distinguishability from rivals. Hospitals are the leading health care institutions in terms of catering to all segments of the society, which renders practical applications of public relations studies indispensable for the creation of a favorable corporate image. This study is an attempt to determine which factors should be taken into account in the measurement of corporate reputation regarding health care institutions.

When general evaluations of frequency analyses are examined, it is seen that perceptions associated with the physical capabilities of the hospital and perceptions reflecting the hospital's general view or reflecting the recommendation of the hospital to others are positive. The most negative perception regarding the hospital is to do with public relations activities. When results are reviewed, though it looks as if a positive perception is formed concerning bureaucratic procedures, it is seen that dire consequences are looming; thus more care is necessary.

H1 hypothesis and 6 sub-hypotheses were accepted. Perceptions of patients with respect to physical services, doctor and staff services, bureaucratic procedures, public relations activities and recommendation to others were found to be significantly different in terms of sex. Males were seen to have a more positive approach than women in all criteria.

H2 hypothesis and 6 sub-hypotheses were accepted. In terms of monthly family income, perceptions regarding the hospital indicated significant differences in all criteria.

H3 hypothesis and 6 sub-hypotheses were accepted. In all patients, according to number of hospital visits, there were significant differences regarding perceptions about the hospital. In all the hypotheses and sub-hypotheses, appearance perceptions of the patients visiting the hospital are positive.

The fact that the criteria in hypotheses were perceived more positively by men as compared to women, indicates that there is a need for corporate image enhancement aimed at women.

Patients from all income levels have positive judgements. Nevertheless, the negative approach by all income levels is again concerned with public relations activities. More visits to the hospital, more benefits from the services the hospital offers, knowing the hospital better, providing the environment to improve communication with the staff and relevant actions to be taken in this respect could contribute to increase favorable perceptions regarding the hospital.

The fact that hospitals faced with reputation problems cannot give up the essential management function of public relations studies is established once again with this study. Public relations activities should be enhanced further and actions should be taken to promote publicity efforts.

## 6. References

- Asna, M. A. (1993). *Public Relations: Basic Concepts*, Der Publications, Istanbul.
- Bakan, O.(2005). *Image Formation and Effective Factors*, Konya:Tablet Publishing House,
- Howard, S. (1998), *Corporate Image Management*, Singapore:Butterworth-Heinemann
- Kadibesegil, S. (2006). *Reputation Management: Have a more important job to do?* Istanbul: Mediacat Books.
- Kaya, E. (2007). *Organizational Culture in Medical Institutions* (Unpublished Doctoral Thesis), Suleyman Demirel University, Turkey.
- Okay, A., Okay, A. (2002). *Public Relations Concept, Strategy and Applications*, Istanbul: Der Publications.
- Okay A. (2000). *Corporate Identity*, Ankara:Media Cat Books
- Peltekoglu, F. B.(2012). *What are Public Relations?* İstanbul:Beta Publications
- Peltekoglu, F. B. (1997). "The Place of Image in Corporate Communication Process", İstanbul:Istanbul University Faculty of Communication Magazine
- Reichman M.R. (1968) "Public Relations". Hospitals
- Solmaz, B. (2011). *Corporate Communication Management*, Tablet Publications, 2nd Edition, Konya.

## The Contribution of Public Relations Studies to Corporate Reputation in Health Care Institutions

Satir, C. (2006). The Nature Of Corporate Reputation and Measurement Of Reputation Components: An Empirical Study within a Hospital. *Corporate Communications An International Journal*, 11(1), 56-63.

Tengilimoglu, D. (2001). *Public Relations in Medical Institutions*, Ankara:Gazi Publishing House

Theaker, A. (2006). *Manual of Public Relations*, Translated by: Murat Yaz, Ankara:Mediacat Publications

Yuksel, Ahmet Bulent (2010). *Strategic Public Relations Management*, Nobel Publications, Ankara

Wilcox, D. L., Cameron, G. T. (2005). *Public Relations Strategies and Tactics*, Boston:Pearson Education Inc.



# **Impact of Local and General Elections on Public Expenditure Composition: A Province Based Analysis**

Hakan Hotunluoglu, Sercan Yavan

## **1. Introduction**

Since the need for the state has arisen, the issues that the state should undertake continue to be discussed. In the context of these debates, there are also differences in the size of the state depending on the differences in economic, social and political structures. State mindset adopted in any country affects the size of the state within the economy of that country. In countries where the size of the state is relatively large, the role of the state in the fiscal space and the functions it undertakes are increasing. One of the indicators of the state's fiscal size is the share of public expenditures in GNP. Moreover, changes in the composition of the total public expenditure itself may also give clues to the changes in the roles and functions of the government in the fiscal space (Aktan, Dilemici, & Vural, 2004, p.27). Public spending has significant impacts on the welfare of the population due to the economic and social activities they have. In particular, community welfare is also increasing as the share of education, health, mass housing, public transportation and social security services increases (Ulutürk, 1998, pp. 109 – 110).

Given the historical development of public spending in the world, especially since the second half of the nineteenth century, public spending has been increasing rapidly and this increase has been accelerated after the first quarter of the twentieth century. It is possible to measure the size of public expenditures by calculating the share of expenditures in GNP. At the beginning of the twentieth century, public spending, which is around 10% of the national income of countries, started to increase since 1930's and in some countries especially after the Second World War, the share of public expenditures in national income reached 50%. The increase in public spending is undoubtedly due to the tasks the state has undertaken and accordingly the increase in public activity. The most important task of the state, as well as ensuring the internal and external security of the society, is to ensure growth and stability in the economy and to improve income distribution. The involvement of the state in the economy has also brought an increase in public expenditures (Pehlivan, 2007, p. 67).

It is known that the share of public expenditures in the GNP tends to increase in almost every country, depending on the developments in economic and social spaces. In fact, this increase in public expenditures emerges as a consequence of modern state understanding. Along with the generally accepted understanding of "social state", the tasks that the school has undertaken have increased and the fields of activity have expanded. Along with the generally accepted "social state" understanding, the tasks that the public has undertaken have increased and the fields of activity have expanded. The government's specifying education and health services as a field of public activity with the tasks such as economic development and growth, struggle against unemployment, expansion of social security coverage are the main factors influencing the increase in public expenditures.

## **2. Theories Explaining the Increase in Public Expenditures**

Various theories about the increase of public expenditures have been developed. Wagner's Law, which is more popular theory among others interpreted the "Engels Law" as a predicted reduction in the share of food expenditures in the household budget as the real income increases, claiming that the demand for public services will increase as the country gets richer. According to Wagner, public spending will increase due to the increase in real national income because public services are included in the group of commodities considered as luxury. Wagner described his views as "Increasing Public Expenditures". Although Wagner points directly to industrialization as the reason for the increase in public spending, social progress will also lead to an increase in public expenditures. In the pre-industrial period, a considerable part of the compulsory goods and services were produced by the private sector and at the

same time, depending on industrialization, public goods and services were needed. Especially, as a result of the externalities that communication and public transportation activities have revealed, private and public sectors have developed together accelerating the increase of real national income. Since the increase in the real income will increase the demand for social services, public expenditures tend to increase continuously (Şener, 2014, p. 39). However, there are also anti-Wagner views. Wildovsky, who has the opposite view, bases his anti-Wagner view on the interrelated consequences between spending and growth relation. According to Wildovsky, the size of the public sector is not a consequence of the expansion emerged in state activity, depending on economic growth and development. Public expenditures and economic growth are negatively related. Namely, as the economy grows, public spending declines. In other words, according to this view, it has been found that in the slow-growing economies, the expansion of the public sector will be larger and inversely proportional to the relationship between growth and public expenditures (Ulutürk, 1998, pp. 47-48).

Another public expenditure increase theory is the Peacock-Wiseman approach. In a study conducted by Peacock and Wiseman in 1961, public revenues collected by the state were discussed. Peacock and Wiseman noted that the increase in public spending is related to the increase in public revenues. Depending on the development of the economy, the accumulated tax revenue and the resulting increase in spending are also likely to increase. In addition to this increase, Peacock and Wiseman concluded that in the UK, public spending from 1890 to 1950 has increased too much during extraordinary periods such as wars and that spending has not fallen to the former level after extraordinary cases (Akdoğan, 2009, p. 71).

Theories of the increase in public expenditures have other approaches besides these two well known theories. These approaches, which we have referred to as other approaches, explain the subject from different aspects. Developmental models for explaining the increase in public spending have been developed separately by famous economists Musgrave and Rostow. According to the model developed by Musgrave and Rostow, the development process consists of 3 stages. Since the first stage is the initial stage, expenditure required for education and economic infrastructure at this stage requires public expenditure. Fundamentally, in the first stage of development, public expenditures are inevitable because private savings are inadequate to meet these expenditures. The second stage is the rapid growth phase. In contrast to the first stage, due to the significant increase in personal savings in this stage, there has been a proportional decrease in public investments and therefore in public expenditures. In the final stage, it is necessary to increase public expenditure in order to fulfill the complementary public investments required to ensure that the increasing demand for special goods is met in high income countries.

According to Musgrave, due to the increase in the number of people who consume public services, the decrease in the tax rate is likely to occur if the income elasticity of demand is greater than one. According to Musgrave's approach, population growth does not increase public expenditure until it fully utilizes scale size. However, if scale size can not meet population growth, public spending will increase more than population growth (Şener, 2014, p. 41).

William Baumol, on the other hand, refers to the problems that public spending will emerge after the increase depending on the political decision-making mechanism. According to Baumol, the increase in demand for public services to ensure politicians' vote-maximization, and therefore the transfer of the workforce to the public sector, will lead to over-growth of this sector. Since the expansion of the public sector in this way is against the private sector, it is called "unbalanced growth" by Baumol. Moreover, the way the market economy works and the resulting disruptions cause an increase in the state's share of the economy today. The most important part of them is the socio-economic infrastructure expenditures and investments, which are quite expensive and not profitable in the short term. This type of investment is not preferred by the private sector because it requires the use of very expensive technology (Şener, 2014, p. 41).

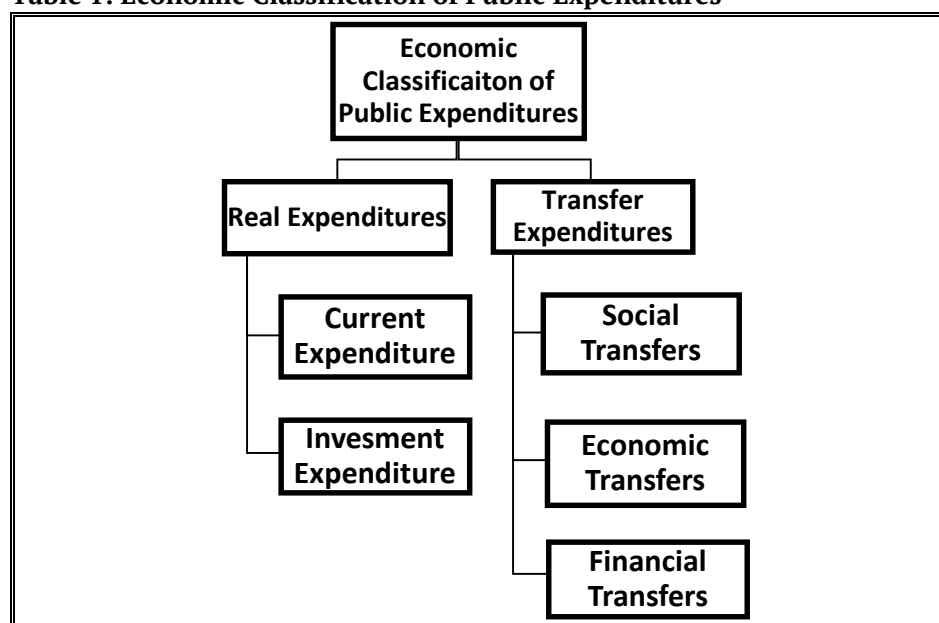
The above opinions, which explain the increase of public expenditures mostly expresses works expressed at the macro level. Apart from macro levels, it is worth mentioning more micro models. The main micro-models are the bureaucracy model, voter behavior model and politician behavior model. In the model of bureaucracy put forward by W. A. Niskanen, the main reason for the increase of public

expenditures and the growth of the public sector is explained by the behavior of bureaucrats. In this model, bureaucrats are expanding their desks in order to secure and consolidate their incomes, strengths and prestige. Thereby, there is an excessive increase in public expenditures due to the demand for a higher budget. The voter behavior model, which is another model tries to explain the increase in public expenditure with the behavior of voters. This model is based on the median voter. Median voters vote for the party that receives the least taxation from them, thus causing the public spending to increase further. In a model of politician behavior, which is the last micro-model, politicians are going to increase public spending both at the local and national level in order to be re-elected in the elections. Making lobbying activities at the local level to maximize the investment of politicians in their electoral circles causes rationalization away from taking public investment decisions. These lobbying activities also cause public spending to increase further. At the national level, the expenditures that politicians make in connection with the over-provisioning of some goods and services within the scope of election work significantly increase public expenditures (Ay, 2014).

The mechanism that enables public spending is the public budget. The public budgets are ultimately shaped by the decisions of the voters' representatives in parliament. In principle, it is expected that representatives should prepare and legislate public budgets that respond to the demands of the majority voters. Thus, the public budgets show the balance between the actual political supply and demand. However, it is not necessary that the public budget, which is enacted in parliament, is always to be an effective public budget. In other words, it is not necessary for the public budget, which is enacted in parliament, to effectively allocate the effective resource allocation between the political supply and demand or an optimal public budget. In order to realize an "effective or optimal" public budget, it is necessary to realize a public budget that has a spending level where marginal social benefit and marginal social cost are equal (Aktan, 2006, p. 68).

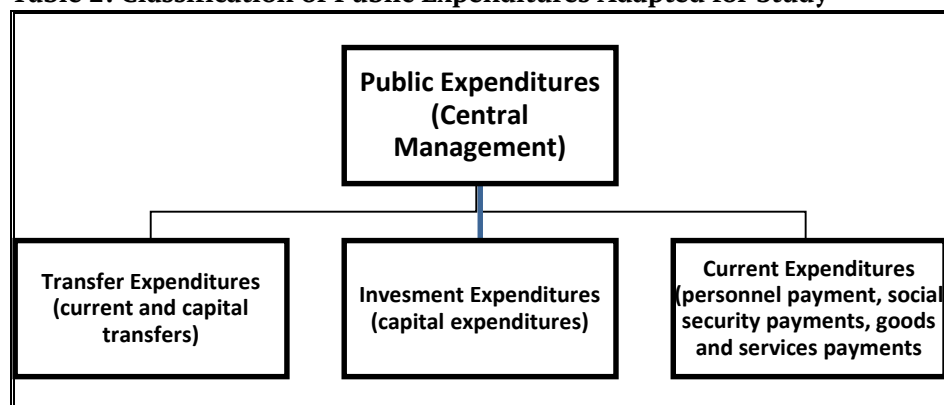
In order to ensure optimal use of the public budget, a closer look at the public expenditure of the public budget makes it possible to better manage the public budget. There are many classification methods in the literature that show public expenditure details. In accordance with the data used in the study, it is necessary to classify a specific public expenditure. The economic classification of public expenditures in the literature has been adapted to expenditures made by central governments. This adaptation is expressed in the following table.

**Table 1: Economic Classification of Public Expenditures**



\* The table is prepared by authors



**Table 2: Classification of Public Expenditures Adapted for Study**

\* The table is prepared by authors.

In this study, the model of politician behavior, which is a part of the political decision-making mechanism and is one of the theories explaining the increase of public expenditures, is emphasized. It is clear that the increase in public spending, especially during election periods, is not sustainable. In this study, instead of the increase in total public expenditures during the election periods, it was emphasized that more efficient resource utilization could be achieved by changing the distribution of expenditure items within public expenditure composition.

### 3. Literature on Election and Public Expenditures

Since the policy makers prefer the expanding monetary and fiscal policy during the election period, there is a brief artificial relaxation in the economy. The expanding fiscal policy manifests itself in particular as an increase in public expenditure. Within this scope, it is seen that current expenditures, transfer expenditures and investment expenditures are increased. In spite of the increase of these expenditure items, the reduction of the tax rates is frequently used in the election periods. As a result, the expansionary cost policies applied during the election period accelerate the economy by providing employment and production increase in the short term. After a while, however, economic recession is experienced along with the decrease in the state revenues and the implementation of tight fiscal policies becomes necessary to get rid of these recessions (Kuşat & Dolmci, 2011, p.140).

There are many studies that examine the relationship between election periods and public expenditures. As a matter of fact, these studies confirm the idea that public expenditures have increased during election periods. Alesina, Cohen & Roubini (1992) found that during the elections in 18 OECD countries, a loose monetary and fiscal policy was implemented. Accordingly, public spending has been observed to increase in pre-election periods (Alesina, Cohen, & Roubini, 1992). Schuknecht (2000), in his study of 24 developing countries from 1973 to 1992, found that governments used fiscal policies as an impressive tool of election results. In the study, it was seen that public spending was increased rather than lowering taxes as the main tool in the form of the expansionary cost policy (Schuknecht, 2000). Vergne (2009) investigated the effects of elections on public expenditure in a study conducted in 42 developing countries in 1975-2001. It has been observed that the election periods increased current expenditures (Vergne, 2009). Shi and Svensson (2002), who examined a 21-year period of time for the 91 developed and developing countries found an increase in public spending during election periods. Moreover, it has been observed that public spending on elections in developing countries is higher than in developed countries (Shi & Svensson, 2002). Potrafke (2010) conducted a study for 18 OECD countries, between 1971 and 2004 and found that during the election period, the health expenditures covered by the current expenditure increased (Potrafke, 2010).

In the literature, there are studies relating to elections and public expenditure in Turkey. In a study conducted 1986-1997 periods, Telatar (2001) found that policymakers are making policy to increase pre-election money supply and public spending to increase chances of re-election (Telatar, 2001). In a study conducted using quarterly data by Akçoraoğlu ve Yurdakul (2004) in Turkey in 1987-2003 it was revealed that during the election period, politicians were implementing enlargement fiscal policies that

would accelerate economic growth and help them to win elections. As a result, it was determined that budget deficits occurred due to the increase in public expenditures during election periods (Akçoraoğlu & Yurdakul, 2004). Sezgin (2007) emphasized the influence of political conjunctural fluctuations on the economy during the period of 1950-2003. It was observed that one of these effects was an increase in public expenditures during election periods (Sezgin, 2007). Hotunluoglu(2016) has observed increase in public spending by examining the pre-election period in Turkey in 1950-2012 period. The increase in current expenditures and investment expenditures, which are components of public expenditures, was found to be in favor of current expenditures three years before the election, while an increase tendency in investment expenditures was found two years before the election (Hotunluoğlu, 2016).

#### 4. Model and Data Set

In the study, data from Turkey's 81 provinces has been used. Public expenditure data obtained from General Directorate of Public Accounts (Muhasebat Genel Müdürlüğü, 2018), other data obtained from TUIK (Turkey Statistical Institute, 2018). The relevant data covers between 2008-2013 years. Two separate variables (LE and GE) have been established in order to determine the effect of local and general elections on public expenditures. The least squares method is used in this regression model.

In the study, public expenditure data has been taken into consideration as transfer expenditures, current expenditures and investment expenditures separately. Public spending has been modeled below as a function of election, housing sales, unemployment rate, population and export import coverage (Schuknecht, 2000, Vergne, 2009, Hotunluoglu, 2016).

$$\text{Public Expenditure} = \beta_0 + \beta_1 LE_{it} + \beta_2 \text{housing}_{it} + \beta_3 \text{Unemployment}_{it} + \beta_4 \text{Population}_{it} + \beta_5 x/m_{it} + \varepsilon_{it}$$

$$\text{Public Expenditure} = \beta_0 + \beta_1 GE_{it} + \beta_2 \text{housing}_{it} + \beta_3 \text{Unemployment}_{it} + \beta_4 \text{Population}_{it} + \beta_5 x/m_{it} + \varepsilon_{it}$$

The analysis has been carried out with local data from Turkey, which has revealed adequate data discovery problems. Hence, instead of income and development level variables, different variables that represent them are used. The house sales data used in the model which is taken as a sign of the income of the relevant province. In addition, the export coverage ratio of imports was used in the study to consider the level of development of the province.

**Table 3: Descriptive statistics**

	Current Expenditure s	Transfe r Expenditure s	Investm ent Expenditure s	Hou sing Sales	Unem ploymet Rate	Rate of exports meeting import
<i>Mean</i>	13.553	10.695	11.426	7.8	2.207	0.33
				25		2
	13.490	10.650	11.152	7.8	2.197	0.14
<i>Median</i>				07		9
	16.670	15.506	16.142	12.	3.277	14.1
<i>Maximum</i>				366		21
	11.578	8.053	8.440	3.2	1.308	-
<i>Minimum</i>				58		9.783
	0.866	1.059	1.206	1.5	0.392	1.49
<i>Standart Error</i>				34		3
<i>Skewne ss</i>	0.705	0.872	0.743	-	0.198	1.21
				0.034		8
<i>Kurtosi s</i>	4.080	6.054	3.599	3.6	2.321	22.7
				45		46

<i>Jarque-Bera</i>	63.853	250.03	51.970	8.5	12.48	8.05
<i>Possibility</i>	0.000	0.000	0.000	0.0	0.001	0.00
<i>Total</i>	6573.6	5187.4	5541.9	379	1070.	161.
<i>Error</i>	363.12	542.87	704.43	113	74.56	1078
<i>Squares</i>	8	2	8	9.825	9	.985
<i>Total</i>	485	485	485	485	485	485
<i>Number of Observations</i>	485	485	485	485	485	485

According to the results of the analysis on transfer expenditures, while the local elections have a decreasing effect on the transfer expenditures, it is observed that the general elections have an increasing effect. Also before the election periods, the same effects are observed in general and local elections. Especially the effect of general elections on transfer expenditures is statistically significant in all three periods. This may indicate that changes in centralized transfer expenditures are affected by general elections. In other words, as general elections approach, transfer expenditures increase in public expenditures. When the effect of local elections on the same data is examined, it is seen that transfer expenditures decrease as local elections approach. This suggests that transfer expenditures within the central budget during the local elections period are decreasing. In light of these findings, it is observed that general elections have increased transfer expenditures and local elections have reduced transfer expenditures. This result shows the effect of political budget cycle in Turkey.

Table 4: Transfer Expenditures

Variable	1	2	3	4	5	6
<i>Local Election</i>	-					
	0,985***					
	(-10,304)					
<i>Local Election(-1)</i>		0,00				
		2				
		(0,017)				
<i>Local Election(-2)</i>			-			
			0,141*			
			(-1,732)			
<i>General Election</i>				0,33		
				1***		
				(3,152)		
<i>General Election(-1)</i>					0,30	
					6***	
					(3,403)	
<i>General Election(-2)</i>						0,25
						0***
						(2,971)

## Impact of Local and General Elections on Public Expenditure Composition

<b>Housing Sales</b>	<b>0,12</b> 5***	<b>0,14</b> 1***	<b>0,12</b> 2***	<b>0,17</b> 8***	<b>0,14</b> 5***	<b>0,09</b> 9***
	(3,45 5)	(4,1 75)	(3,6 48)	(4,4 77)	(4,3 74)	(2,8 81)
<b>Unemployment rate</b>	<b>0,28</b> 0***	<b>0,18</b> 6*	<b>0,49</b> 3***	<b>0,21</b> 5*	<b>0,25</b> 7***	<b>0,51</b> 0***
	(2,82 1)	(1,9 20)	(4,8 11)	(1,9 40)	(2,6 45)	(5,0 28)
<b>Population</b>	<b>0,39</b> 1***	<b>0,41</b> 5***	<b>0,40</b> 2***	<b>0,35</b> 2***	<b>0,40</b> 7***	<b>0,41</b> 7***
	(8,35 4)	(9,2 20)	(8,8 66)	(6,7 91)	(9,1 85)	(9,2 00)
<b>Rate of exports meeting imports</b>	<b>0,05</b> 2**	<b>0,03</b> 6	<b>0,04</b> 4*	<b>0,05</b> 3*	<b>0,04</b> 2	<b>0,03</b> 9
	(2,00 6)	(1,3 519)	(1,6 81)	(1,8 41)	(1,5 84)	(1,5 00)
<b>C</b>	<b>4,07</b> 1***	<b>3,92</b> 6***	<b>3,77</b> 0***	<b>4,05</b> 4***	<b>3,77</b> 0***	<b>3,61</b> 4***
	(8,88 3)	(9,1 19)	(8,6 19)	(7,9 57)	(8,8 32)	(8,2 73)
<b>R<sup>2</sup></b>	0,498	0,46	0,52	0,37	0,47	0,53
		3	7	9	8	5
<b>Adjusted R<sup>2</sup></b>	0,492	0,45	0,52	0,37	0,47	0,52
		6	0	2	2	8
<b>F-statistic</b>	7,894 ***	6,88 6***	7,08 8***	4,86 8***	7,31 8***	7,33 2***

Table 5: Current Expenditures

Variable	1	2	3	4	5	6
<b>Local Election</b>	- 0,256*** (- 4,747)					
<b>Local Election(-1)</b>		- 0,117** (- 2,276)				
<b>Local Election(-2)</b>			-0,042 (- 0,801)			
<b>General Election</b>				-0,030 (- 0,554)		
<b>General Election(-1)</b>					0,235* ** (4,602 )	
<b>General Election(-2)</b>						0,056

												(1,041)
												)
<b>Housing Sales</b>	<b>**</b>	<b>0,243*</b>	<b>**</b>	<b>0,226*</b>	<b>**</b>	<b>0,220*</b>	<b>**</b>	<b>0,257*</b>	<b>**</b>	<b>0,233*</b>	<b>**</b>	<b>0,215*</b>
		(11,930)		(11,692)		(10,329)		(12,412)		(12,343)		(9,746)
<b>Unemployment rate</b>	<b>**</b>	<b>0,171*</b>	<b>*</b>	<b>0,140*</b>	<b>**</b>	<b>0,236*</b>	<b>**</b>	<b>0,165*</b>	<b>**</b>	<b>0,179*</b>	<b>**</b>	<b>0,240*</b>
		(3,053)		(2,530)		(3,612)		(2,860)		(3,242)		(3,690)
<b>Population</b>	<b>**</b>	<b>0,367*</b>	<b>**</b>	<b>0,398*</b>	<b>**</b>	<b>0,400*</b>	<b>**</b>	<b>0,356*</b>	<b>**</b>	<b>0,390*</b>	<b>**</b>	<b>0,403*</b>
<b>n</b>		(13,905)		(15,511)		(13,848)		(13,166)		(15,508)		(13,812)
<b>Rate of exports meeting imports</b>	<b>**</b>	<b>0,038*</b>		0,023		0,026	<b>*</b>	<b>0,038*</b>		<b>0,029*</b>		0,025
		(2,613)		(1,544)		(1,536)		(2,550)		(1,919)		(1,476)
<b>C</b>	<b>**</b>	<b>6,501*</b>	<b>**</b>	<b>6,350*</b>	<b>**</b>	<b>6,194*</b>	<b>**</b>	<b>6,508*</b>	<b>**</b>	<b>6,234*</b>	<b>**</b>	<b>6,159*</b>
		(25,194)		(25,873)		(2,221)		(24,548)		(25,744)		(21,934)
<b>R<sup>2</sup></b>		0,758		0,774		0,777		0,744		0,782		0,778
<b>Adjusted R<sup>2</sup></b>		0,755		0,771		0,774		0,741		0,780		0,774
<b>F-statistic</b>		249,284***		272,716***		222,059***		231,904***		286,670***		222,457***

Analyzes for current and investment expenditures also overlap with those for transfer expenditures. According to the analysis on current and investment expenditures, it is observed that the general elections have had an increasing effect while the local elections have had a decreasing effect on these expenditures. Also before the election periods, the same effects are observed in general and local elections.

**Table 6: Investment Expenditures**

Variable	1	2	3	4	5	6
<b>Local Election</b>	- 0,350*** (-3,551)					
<b>Local Election(-1)</b>		-0,120				
<b>Local Election(-2)</b>		(-1,203)				
<b>General Election</b>			- 0,121 (-1,189)	0,053		

## Impact of Local and General Elections on Public Expenditure Composition

		(0,534)					
<b>General Election(-1)</b>		<b>0,236*</b>					
		)					
<b>General Election(-2)</b>		<b>0,287</b>					
		)					
<b>Housing Sales</b>		<b>0,327*</b>	<b>0,306*</b>	<b>0,285</b>	<b>0,347*</b>	<b>0,314*</b>	<b>0,257</b>
		**) (8,776)	**) (8,206)	*** (6,859)	**) (9,244)	**) (8,474)	*** (6,005)
<b>Unemployment rate</b>		-0,075	-0,092	0,128	-0,092	-0,054	0,144
		(-0,733)	(-0,865)	(1,003)	(-0,882)	(-0,497)	(1,143)
<b>Population</b>		<b>0,414*</b>	<b>0,446*</b>	<b>0,461</b>	<b>0,399*</b>	<b>0,438*</b>	<b>0,482</b>
<b>n</b>		**) (8,578)	**) (8,987)	*** (8,180)	**) (8,183)	**) (8,875)	*** (8,540)
<b>Rate of exports meeting imports</b>		0,038	0,009	0,024	0,039	0,014	0,017
		(1,435)	(0,308)	(0,732)	(1,423)	(0,488)	(0,535)
<b>C</b>		<b>3,619*</b>	<b>3,507*</b>	<b>3,092</b>	<b>3,619*</b>	<b>3,390*</b>	<b>2,911</b>
		**) (7,666)	**) (7,388)	*** (5,676)	**) (7,549)	**) (7,137)	*** (5,355)
<b>R<sup>2</sup></b>		0,575	0,566	0,567	0,562	0,571	0,575
<b>Adjusted R<sup>2</sup></b>		0,569	0,561	0,560	0,556	0,565	0,568
<b>F-statistic</b>		107,55	104,11	83,21	101,94	106,01	86,02
		8***	7***	4***	2***	1***	5***

## 5. Result

In the study, the impact of elections on public expenditure has been examined by using 6-year data between 2008-2013 years in 81 provinces in Turkey. The elections are examined in two categories as general and local elections, and the impact on public expenditure has been analyzed individually. In addition, public expenditures have been subjected to three different analyzes as transfers, current and investment expenditures. Also, the change of public expenditure was taken into consideration before election periods. As a result of these analyses, the general elections have been observed to increase public expenditure within the central administration as the election period approaches. However, as local elections approach, public expenditures within the scope of central administration are decreased. This indicates that if the total public expenditure is fixed, the general elections increase central spending, but local elections reduce central expenditure. The reduction of central expenditures in the period of local elections may indicate that these resources are transferred to local governments. From this point of view, the availability and sustainability of today's total public expenditures do not seem possible due to political use of budget deficits. However, without causing a budget deficit, in other words, without increasing the total public expenditure it is possible to create a political impact with

the replacement of existing public spending items. In this regard, it has been concluded that there is such a change of composition between public spending items in Turkey.

## 6. References

- Akçoraoğlu, A., & Yurdakul, F. (2004). Siyasal Ekonomi Açısından Büyüme, Enflasyon ve Bütçe Açıkları: Türkiye Üzerine Bir Uygulama. *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, 59(1), 1–25.
- Akdoğan, A. (2009). *Kamu Maliyesi*. Ankara: Gazi Kitabevi.
- Aktan, C. C. (Ed.). (2006). *En Az Devlet En İyi Devlet*. Konya: Çizgi Yayınevi.
- Aktan, C. C., Dileyici, D., & Vural, İ. Y. (2004). *Kamu Maliyesinde Çağdaş Yaklaşımlar*. Ankara: Seçkin Yayınevi.
- Alesina, A., Cohen, G. D., & Roubini, N. (1992). Macroeconomic Policy and Elections in Oecd Democracies. *Economics & Politics*, 4(1), 1–30. <https://doi.org/10.1111/j.1468-0343.1992.tb00052.x>
- Ay, H. (2014). *Kamu Maliyesi*. Ankara: Nobel Yayın Dağıtım.
- Hotunluoğlu, H. (2016). Türkiye’de Politik Bütçe Hareketlerinin Kamu Harcamalarının Dağılımı Açısından Analizi. *Yönetim ve Ekonomi: Celal Bayar Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 23(1), 113–125.
- Kuşat, N., & Dolmacı, N. (2011). Kamu Tercihi Teorisi Çerçevesinde Seçim Ekonomisi Kavramının Değerlendirilmesi. *Cumhuriyet Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 12(1), 129–146.
- Muhasebat Genel Müdürlüğü. (2018). Muhasebat Genel Müdürlüğü. Retrieved at October 10, 2017 <https://www.muhasabat.gov.tr/content/genel-yonetim-mali-istatistikleri>
- Pehlivan, O. (2007). *Kamu Maliyesi*. Trabzon: Derya Kitabevi.
- Potrafke, N. (2010). The Growth of Public Health Expenditures in OECD Countries: Do Government Ideology and Electoral Motives Matter? *Journal of Health Economics*, 29(6), 797–810. <https://doi.org/10.1016/j.jhealeco.2010.07.008>
- Schuknecht, L. (2000). Fiscal Policy Cycles and Public Expenditure in Developing Countries. *Public Choice*, 102(1), 115–130.
- Sezgin, Ş. (2007). Türkiye’de Politik Konjonktürel Dalgalanmalar: 1950-2003 Dönemi. *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, 62(2), 135–154.
- Shi, M., & Svensson, J. (2002). Political Budget Cycles in Developed and Developing Countries. İçinde *Association of Swedish Development Economists* (pp. 1–18). Retrieved at November 20, 2017 <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.202.8595&rep=rep1&type=pdf>
- Şener, O. (2014). *Kamu Ekonomisi* (12. baskı). İstanbul: Beta.
- Telatar, F. E. (2001). Politik Devresel Dalgalanmalar Teorisi Işığında Demokrasi-Siyaset-Ekonomi İlişkisi Türkiye Örneği. *İktisat İşletme ve Finans*, 16(187), 50–66. <https://doi.org/10.3848/iif.2001.187.2736>
- Türkiye İstatistik Kurumu. (2018). Türkiye İstatistik Kurumu. Retrieved at October 10, 2017 <http://www.tuik.gov.tr>
- Ulutürk, S. (1998). *Türkiye’de Planlı Dönemde Kamu Harcamalarını Gelişimi ve Devletin Ekonomideki Rolü*. Ankara: Akçağ Yayınları.
- Vergne, C. (2009). Democracy, Elections and Allocation of Public Expenditures in Developing Countries. *European Journal of Political Economy*, 25(1), 63–77. <https://doi.org/10.1016/j.ejpoleco.2008.09.003>

# **Ethical Leadership On Employees Of Public Sector and An Investigation Of The Impact Of The Perception Of Trust In A Leader On Ethical Climate, with the Structural Equation Modelling**

Seher A.Tezergil

## **1. Introduction**

While globalization is effective in increasing ethical problems, it also leads to the development of new and different points of view on these issues. Administrators of businesses now need to manage the ethical climate in their organizations in order to improve productivity and business performance. The researches show that the ethical climate in the organization has an effect on ethical behaviour and job attitudes of employees. Hence, it is important to determine the parameters affecting the ethical climate. In this context, in this research, the ethical climate in the organization has been evaluated on the axis of ethical leadership and trusting in a leader. That is, the effects of ethical leadership and trust in leader on the ethical climate within organizations are investigated.

*Ethical leadership*, which is described as “the leader encourages practice ethical standards, values, or norms in everyday life, to encourage ethical decision-making in the organization and to show ethical behaviour in practice”, has become an important concept (Kang, 2009). Therefore, to establish an ethical climate in organization, it is necessary, important and critical for the leader to demonstrate ethical behaviour and to be a role model in terms of ethics to the members of the organization (Aronson, 2001: 245). On account of the fact that people are social beings affected by each other, leaders in business are important role models in creating a positive ethical climate (Jose and Thibodeaux, 1999: 134-135).

Trust is a concept that is frequently searched in organizational behavioural discipline. In the literature, there is a consensus that trust is necessary for organizational success, yet it requires a long and self-sacrificing process that cannot be achieved in the very short term (Demircan and Ceylan, 2003, 139-150).

Interpersonal trust depends on the establishment of trust-based relations in organizations due to the fact that it is a two-sided process involving the leader and his followers and the employees' trust in their leaders and their organizations as a whole (Brower et al, 2000, 230-231). Briefly, climate is a concept which defines the organization in terms of psychological/sociological aspects and reveals the nature of human relations in the organization (Büte, 2011). While organizational climate is defined as the general atmosphere that the organization culture establishes within the business, the ethical climate is generally seen by researchers as a sub-climate of organizational climate. Since Appelbaum et al. (2005) determines the factors affecting the ethical climate as selfishness of the people, profitability of the company, effective operation of the company, friendship in the company, social responsibility, individual morality, rules and professional codes (Sims, 1992), they reveal that the most important factor is the real behaviour of the top management.

For ethical climate, using many different methods, a great number of studies have been conducted by the researchers in local and international literature. Similarly, various studies have been carried out in both the private and the public sectors in Turkey. Mostly; ethical climate and their relations among many subjects were especially investigated such as the organizational communication of ethical climate in private sector businesses (Eyidoğan, 2013), organizational reliability (Bilgen, 2014; Eren and Hayatoğlu, 2011), relying on the administrator (Eren and Hayatoğlu, 2011), job performance (Eren and Hayatoğlu, 2011), job satisfaction (Çevirgen, 2009; Eren and Hayatoğlu, 2011). On the other hand, it is also likely to find various researches such as the relations between ethical climate and demographic variables (Bilgen, 2014), the effect of ethical climate on public trust in the institutions (Torun, 2013) and the effects on ethical climate perception and individual outcomes (Yeşil et al, 2017).



This study aims to search the impact of ethical leadership perception of employees and the trust in the leader on ethical climate perceptions.

## 2. Method

Structural Equation Models (SEM) are models that allow the quantitative testing of the existing theoretical model to be done using many different models to explain the relationship between observed-observable, observed-latent and latent-latent variables (Schumacker and Lomax, 2004). It is, therefore, a systematic and comprehensive analysis which is often used both in the investigation of the relationships between variables especially in psychology, sociology, marketing and educational sciences, and in the testing of theoretical models (Joreskog and Sörbom, 2001). The first reason why structural equation modelling is preferred to many other variant analysis methods is the fact that it is a very verifiable approach rather than the descriptive approach in data analysis. The second reason is; while conventional multivariate analyses remain weak in evaluating or correcting the measurement errors, it provides an accurate estimation of the parameters of SEM's measurement error variance parameters. Besides; while data analysis using regression models, path models, confirmatory factor analysis models is based merely on observable variables, it is another reason for SEM to include both latent variables and observable variables into the analysis (Byrne, 2010). In structural equation model; there are five fundamental steps such as "Specification", "Identification", "Estimation", "Testing" and "Modification" (Schumacker and Lomax, 2004; Bayram, 2013). Although there is not much information on the size of sampling in the literature, Schumaker and Lomax (2004) reported 250-500 sizes of sampling were used in many studies.

## 3. Findings

Surveys have been used for data gathering. In the study, there are three latent variables such as *Ethical Leadership*, *Trust in The Leader* and *Ethical Climate*, and three different scales. In the study, 5-point Likert-type scales were used such as; (Absolutely Agree=5; Absolutely Disagree=1) To measure the ethical climate; the scale developed by Schwepker (2001), to measure the perception of the ethical leadership behaviour the scale adopted from Brown et al (2005) and to measure the employee trust in leader; the scale developed by Rich (1997) have been adopted and used. Data obtained from 1070 public sector employees were analysed in statistical package programme as well as LISREL package programs to try to model the effect of *ethical leadership* and *trust in the leader* on *the ethical climate*.

In other words, with this study it is aimed to test two hypotheses established as;

$H_{0,EL}$ : *Ethical leadership does not have a positive influence on the ethical climate.*

$H_{1,EL}$ : *Ethical leadership has a positive influence on the ethical climate.*

$H_{0,T}$ : *Trust in leader does not have a positive influence on the ethical climate.*

$H_{1,T}$ : *Trust in leader has a positive influence on the ethical climate.*

The data were analysed on the model of measurement and the model of structural axis. While it was shown how latent variables or theoretical structures depend on the observed variables in the measurement model, causal relationships between the structural model and latent variables were determined and causal effects were defined. After explanatory factor analysis through confirmatory factor analysis was conducted, the structural equality model was tested. Following the measurement model goodness of fit values and measurement model results were evaluated, and whether the multidimensional model was valid was also analysed with the values of compliance goodness. CFI, GFI, AGFI, NFI, NNFI, RMR, SRMR and RMSEA indices were used in determining the validity of the structural equation model. Frequency analysis was used in the assessment of demographic variables.

## Ethical Leadership On Employees Of Public Sector

Table 1. Gender Distribution Table

	Frequency	Percent	Valid Percent	Cumulative Percent
Female	349	32,6	32,6	32,6
Male	721	67,4	67,4	100,0
Total	1070	100,0	100,0	

It is seen that 33% of the 1070 respondents are women whereas 67% of respondents are men (Table1).

Table 2. Education

	Frequency	Percent	Valid Percent	Cumulative Percent
Primary	5	,5	,5	,5
Secondary (High)	86	8,0	8,0	8,5
Undergraduate	308	28,8	28,8	37,3
Degree	546	51,0	51,0	88,3
Postgraduate	119	11,1	11,1	99,4
Master / Doctorate	6	,6	,6	100,0
Total	1070	100,0	100,0	

Regarding the educational background, about 63% of the sample had undergraduate and graduate level (Table2). At first, Explanatory Factor Analysis (EFA) (a type of analysis allowing a large number of variables to be transformed into new variables by dividing them into specific groups called factors) was applied to maximize the relationship among the variables within the group and to minimize the relationship among the groups. Thus, many latent variables were made more controllable factors, that is to say, reduction and summarization of data was provided (Yap and Khong, 2006).

Additionally, Varimax vertical rotation technique was used as the rotation method. Through Varimax method, giving priority to the columns of the factor load matrix in order to reach both the simple structure was provided and the significant factors to be ensured that the factor variances are maximized with fewer variables (Tavşancıl, 2002, 50). According to the results of the analysis, it was obtained 3 factors and 20 variables describing 66.75% of the total variance over eigenvalues 1. Factors with factor loadings over 0.50 were selected (Lee, 2009; Costa-Font and Gil, 2009). When the results of EFA are examined, it is seen that they constitute the factor of Ethical Leadership (EL) by grouping 10 items in the scale; Ethical Climate (EC) grouped by 5 and Trust in the Leader (T) grouped by 5 (Table 3). In other words, EL, EC and T sub-dimensions were found to be collected under the same factor load.

**Table 3. Explanatory Factor Analysis (AFA)**

Items	Factor Loads	Eigenvalues	Variance Description Percentages
<b>Ethical Leadership (EL)</b>		<b>5,742</b>	<b>28,710</b>
el9	,762		
el8	,757		
el5	,740		
el7	,736		
el3	,727		
el6	,714		
el2	,662		
el1	,640		
el4	,631		
el10	,618		
<b>Ethical Climate (EC)</b>		<b>3,892</b>	<b>19,462</b>
ec3	,850		
ec2	,846		
ec4	,831		
ec1	,785		
ec5	,733		
<b>Trust in Leader (T)</b>		<b>3,716</b>	<b>18,579</b>
t2	,780		
t3	,778		
t4	,766		
t5	,724		
t1	,672		
<b>Total Variance Explanation %</b>			<b>66,751</b>

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. Rotation converged in 5 iterations.

Cronbach's Alfa reliability test was performed on variables included in the analysis, and it was researched whether alpha coefficient is over 0.70 or not (Kim, et al., 2007) and it was seen that all variables had Cronbach's Alpha values above 0.70 (Table 4).

**Table 4. Cronbach's Alpha Table**

Cronbach's Alpha		
<b>Ethical Leadership (EL)</b>	<b>Ethical Climate (EC)</b>	<b>Trust in Leader (T)</b>
,926	,912	,903

Following, skewness and kurtosis of EL, EC and T variables were examined. It is expected that the statistical value range for the 5% trust interval of the skewness and kurtosis values is  $\pm 2.58$ , and the

skewness and kurtosis values have a statistical value range of  $\pm 1.96$  for the 1% trust interval (Liu et al., 2005). It was found that the skewness and kurtosis were within the limits, and the maximum Likelihood estimation method was determined to be able to perform Confirmatory Factor Analysis and Structural Equation Modelling.

In the second phase of the study, in order to test the appropriateness to the factor structures determined by the hypothesis, Confirmatory Factor Analysis (CFA) was applied to the factors determined by the Explanatory Factor Analysis. For the model to be acceptable, the significance of the t- values of the variables was examined owing to the fact that the t- values of all the items in the model should be significant. Although the values of "t" are significant, the model was modified due to low  $R^2$ , excluding El1, El4, El10 and El12 from the study. After that, CFA was repeated and the following results were obtained:

**Table 5. Measuring Models Goodness of Fit Values (CFA)**

Statistics	Good Conformity	Acceptable Conformity	Values	
RMSEA	$0 \leq \text{RMSEA} \leq 0.05$	$0.05 < \text{RMSEA} \leq 0.08$	0.075	Acceptable
NFI	$0.95 \leq \text{NFI} \leq 1$	$0.90 \leq \text{NFI} < 0.95$	0.98	Good Conformity
NNFI	$0.97 \leq \text{NNFI} \leq 1$	$0.95 \leq \text{NNFI} < 0.97$	0.98	Good Conformity
CFI	$0.97 \leq \text{CFI} \leq 1$	$0.95 \leq \text{CFI} < 0.97$	0.98	Good Conformity
RMR	$0 \leq \text{RMR} \leq 0.05$	$0.05 < \text{RMR} \leq 0.10$	0.06	Acceptable
SRMR	$0 \leq \text{SRMR} \leq 0.05$	$0.05 < \text{SRMR} \leq 0.10$	0.03	Good Conformity
GFI	$0.95 \leq \text{GFI} \leq 1$	$0.90 \leq \text{GFI} < 0.95$	0.92	Acceptable
AGFI	$0.90 \leq \text{AGFI} \leq 1$	$0.85 \leq \text{AGFI} < 0.90$	0.89	Acceptable

**Source:** Schermelleh & Moosbrugger, (2003), 23-74.

When the conformity-good of values of the model drawn for the total sample were examined, it was found that the model had a good conformity. A good fit for the model is that the RMSEA, RMR and SRMR values are below 0.05, and if these values are below 0.08, it shows that it has an acceptable value of conformity goodness. It is acceptable according to RMR values, according to the values of SRMR and RMSEA has good compliance values. It has been calculated as  $\text{GFI} = 0.92$  and  $\text{AGFI} = 0.89$  and this seems to be in good agreement with the model in terms of the values in question.  $\text{NFI} = 0.98$ ,  $\text{NNFI} = 0.98$  and  $\text{CFI} = 0.98$  have been obtained from the conformity indices. Inasmuch as NFI, NNFI, and CFI compliance values are higher than 0.90, it can be said that the model shows a good conformity.

**Table 6. Measuring Model Results**

		Standardize d Factor Load	Standar d Error	T Value	Avarag e Variance (AVE)	Compoun d Reliability (CR)
El	3el	0.77	0.036	29.30	0.64	0.913
	5el	0.80	0.034	31.11		
	6el	0.80	0.034	31.16		
	7el	0.80	0.033	30.95		

	<b>8</b>	<b>el</b>	0.83	0.032	7	32.3		
	<b>9</b>	<b>el</b>	0.79	0.033	3	30.5		
<b>T</b>		<b>t1</b>	0.71	0.037	5	26.1	0.66	0.905
		<b>t2</b>	0.83	0.034	8	32.8		
		<b>t3</b>	0.84	0.033	2	33.4		
		<b>t4</b>	0.86	0.033	7	34.2		
		<b>t5</b>	0.80	0.035	7	30.5		
<b>C</b>	<b>1</b>	<b>ec</b>	0.79	0.034	2	30.4	0.64	0.913
	<b>2</b>	<b>ec</b>	0.86	0.032	4	34.7		
	<b>3</b>	<b>ec</b>	0.87	0.032	4	35.4		
	<b>4</b>	<b>ec</b>	0.83	0.032	7	32.7		
	<b>5</b>	<b>ec</b>	0.74	0.036	3	27.6		
	<b>6</b>	<b>ec</b>	0.68	0.037	8	24.3		

Convergence and discriminant validity analyses were carried out so as to determine the reliability of the model after having sufficient compliance values for the measurement model. For convergence validity, the average variance (AVE) values of the variance for the convergence validity of the scale according to Fornell and Larcker (1981) had to be over 0.50; and the compound reliability values (CR) were to 0.70. As can be seen in Table 6, all the variables in the survey scale provide the conditions. Therefore, convergence validity criteria are provided for all three variables (Bezirgan, 2014, 533). In the next phase, the discriminative validity of these dimensions which are decisive in deciding on structural validity has been examined. According to the methodology proposed by Fornell and Larcker (1981), in determining the discrimination of the validity of the model, the square root of the average expressed variance value (AVE) of a factor is sufficient for discriminant validity, as this factor is larger than the correlation values with other factors. According to the findings obtained from the analysis, the dimensions in the model are separate structures and that the distinction validity is provided (Table 7).

**Table 7. Discrimination Validity**

	1	2	3
<b>EL</b>	0.80		
<b>EC</b>	0.55	0.80	
<b>T</b>	0.79	0.37	0.81

How and to what extent the variables to be observed by measuring models (as a measuring tool) describe latent variables called factor is revealed (Aytaç and Öngen, 2012). Therefore, the interdependent effects among these factors and latent factors in the structure of the scale were tested by creating a first-level CFA model.

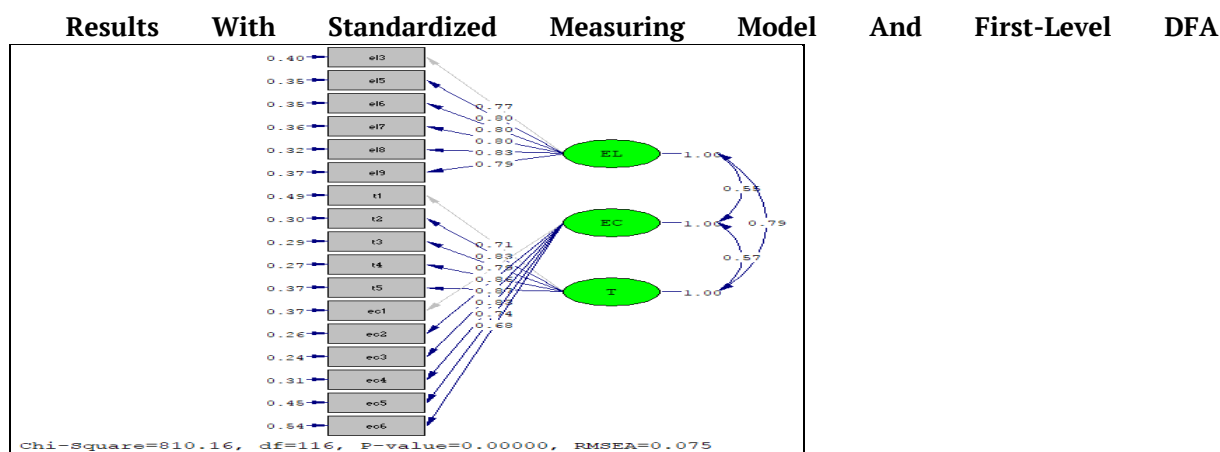


Figure 1

As it can be seen from Figure 1, the latent variables EL, EC, and T are interrelated and are represented by bidirectional arrows. While the 0.79 value shows the correlation value between EL and T, the correlation values between EC and T and EL and EC are 0.57 and 0.55, respectively. Standardized analysis values give an idea of how good each item (the observed variable) is a representative of its own latent variable (Aytaç and Öngen, 2012). The 20 observed variables representing the factors are shown by 20 rectangles, and it is seen that each observed variable is loaded with a single factor. Furthermore, the one-way arrows pointing toward the observed variable from the latent variables EL, EC, and T indicate a one-way linear relationship. Variables mentioned present information on how good each item is a representative of its latent variable. Therefore, the size which most affects the EL factor is the question (e18) “My leader forms an example of how things can be done right ethically” with a load of 0.83, the size which most affects the EC factor is the question (ec3) “The place at which I work has the policies related to the behaviours appropriate to work ethic” with a load of 0.87 and the size which most affects the EL factor is the question (t4) “I am sure that my leader will always be fair to me” with a load of 0.86 is seen. Besides, in the standardized path coefficients, about 10 is small; about 30 is medium; and the coefficients above 50 can be interpreted as large effects.

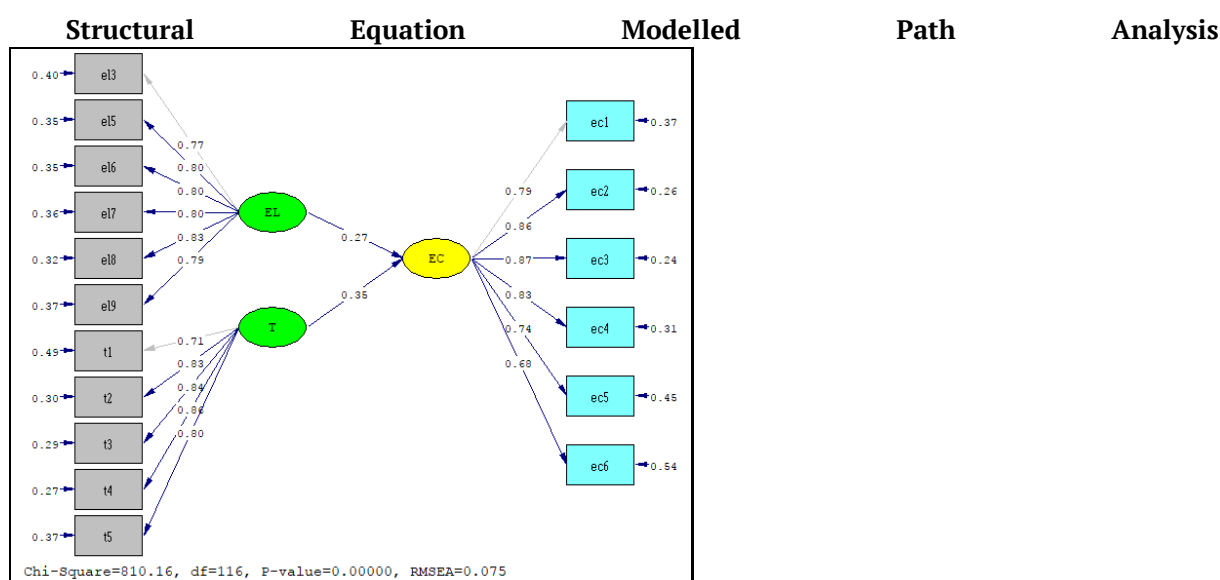


Figure 2

As seen in Table 8, when the values of conformity goodness are examined for the structural equation model, it is seen that the model has a good conformity.

**Table 8. Structural Model Compliance Index Values**

Statistics	Good Conformity	Acceptable Conformity	Values	
RMSEA	$0 \leq \text{RMSEA} \leq 0.05$	$0.05 < \text{RMSEA} \leq 0.08$	0.075	Acceptable Conformity
NFI	$0.95 \leq \text{NFI} \leq 1$	$0.90 \leq \text{NFI} < 0.95$	0.98	Good Conformity
NNFI	$0.97 \leq \text{NNFI} \leq 1$	$0.95 \leq \text{NNFI} < 0.97$	0.98	Good Conformity
CFI	$0.97 \leq \text{CFI} \leq 1$	$0.95 \leq \text{CFI} < 0.97$	0.98	Good Conformity
RMR	$0 \leq \text{RMR} \leq 0.05$	$0.05 < \text{RMR} \leq 0.10$	0.06	Acceptable Conformity
SRMR	$0 \leq \text{SRMR} \leq 0.05$	$0.05 < \text{SRMR} \leq 0.10$	0.03	Good Conformity
GFI	$0.95 \leq \text{GFI} \leq 1$	$0.90 \leq \text{GFI} < 0.95$	0.91	Acceptable Conformity
AGFI	$0.90 \leq \text{AGFI} \leq 1$	$0.85 \leq \text{AGFI} < 0.90$	0.88	Acceptable Conformity

**Kaynak:** Schermelleh & Moosbrugger, (2003), 23-74.

Besides, RMSEA and RMR indicate acceptable conformity, and SRMR indicates a good conformity for the model. They are acceptable according to RMR values, and they have good compliance values according to SRMR and RMSEA. GFI = 0.91 and AGFI = 0.88 as calculated, which seems to be an acceptable conformity for the model on the axis of the subject values. It has been found NFI = 0.98, NNFI = 0.98, and CFI = 0.98 from the conformity indices. As the NFI, NNFI and CFI conformity values are above 0.90, it can be said that the model shows a good conformity.(Table 8)

**Table 9. Structural Model Results**

Structural Relations	Standardized Path coefficients	Stand rd Deviati on	t valu es
EL → EC	0,27	0,052	5,25
T → EC	0,35	0,058	6,56
EC = 0,27 EL + 0,35 T <span style="float: right;">R<sup>2</sup> = 0,35</span>			

According to the structural model results summarized in Table 9,  $H_{0,EL}$  and  $H_{0,T}$  hypotheses developed as "Ethical Leadership does not have a positive effect on the Ethical Climate" and "Trust in Leader has no positive influence on the Ethical Climate" have been rejected, and it is seen that EL and T have positive effects on EC, and EL and T can only explain 35% of the total effect on EC.

#### 4. Discussion And Future Recommendations

Today, the need for the ethical climate being managed to improve the efficiency and the job performance has been a significant importance within organisations. Hence, in this study, the effect of ethical leadership and trust in leader among ethical climate in the organisations has been researched, by utilizing the Structural Equation Modelling (SEM). Regarding the sample, females form the 33% and the males form the 67% of the 1070 individuals, which form the sample space of the study and circa 63% of the illustration consists of minimally undergraduate individuals. Primarily, the Explanatory Factor Analysis (EFA) was applied, procuring many hidden variants to be rendered into more controllable factors, in other words, the datum to be diminished and compressed. The factors were provided to be reduced by using Varimax (the upright rotation technique). 3 factors and 20 variants were acquired, explaining the 66,75% of the total variance, the eigenvalues of which is over 1, according to analysis results. When the EFA results are examined, it was observed, that 10 items formed Ethical Leadership (EL), 5 items formed the Ethical Climate (EC) and the remaining 5 clauses formed the Trust

in Leader (T) scale. Alias, the sub-dimensions of EL, EC, and T were recognized to be gathered up in the same factor imposition and the Cronbach's Alpha reliability test was applied to the variants. Each and every variant of the Cronbach's Alpha values was observed to exceed 0,70. Afterwards, the skewness and the kurtosis, belonging to EL, EC and T being examined to be seen fit in the desired limits, the availability of the Maximum Likelihood Estimation method was, in order to carry out EFA and SEM.

In the second phase of the study, the Confirmatory Factor Analysis (CFA) was implemented to the factors, determined by EFA, in order to test the compatibility to the factors, determined by the hypothesis. In order the model to be acceptable, the significance of variants' t-values was examined, while the t-values, belonging to every clause in the model should be significant. Despite the significance of the t-values and because of low  $R^2$ , the clauses as in **el1**, **el4**, **el10** and **el12** were excluded from the study and the model was modified. Thereafter, the CFA was repeated and the following results were obtained.

When the goodness-of-fit values of the model, the results revealed that the model was acceptable. To test the reliability of the model, convergent and discrimination validity was conducted. After it was observed that the values of the average variance explanation (AVE), the convergent validity of which belongs to the variants exceeded 0.50; the composite reliability values (CR) exceeded 0.70, the dimensions' discrimination validity was examined, to be able to decide structural validity. The fact, that the square root of the AVE value, related to each and every factor is bigger than this factor's correlation values to other factors, is sufficient for the discrimination validity. According to the findings, the dimensions in the model were observed to be separate structures and the discrimination validity was detected.

According to the primary-level CFA model, while the correlation between EL and T is 0.79, the correlation values between EC-T and EL-EC are 0.57 and 0.55, respectively. Furthermore, the fact, that the inquiry "My leader sets a good example about how things are done right." influences the EL factor the most with a 0.83 imposition, the inquiry "The constitution where I work at, has the policies, related to behaviours, appropriate to work ethics." influences the EC factor the most with a 0.87 imposition, the inquiry "I am sure, my leader will always act fair to me." was perceived. When the goodness-of-fit values were studied for the structural equation model, the model appeared to have a decent coherence. According to the structural model results, the hypotheses as revealed in  $H_{0,EL}$  "Ethical leadership does not have a positive influence over ethical climate" and  $H_{0,T}$  "Trust in leader does not have a positive influence over ethical climate" have been rejected and it has been observed that EL and T have a positive influence on EC. Nevertheless, EL and T are observed to explain the 35% of the total influence.

## References

- Aytaç M., and Öngen B., (2012). *Doğrulamalı Faktör Analizi İle Yeni Çevresel Paradigma Ölçeğinin Yapı Geçerliliğinin İncelenmesi*, İstatistikçiler Dergisi 5, 14-22
- Aronson, E. (2001). *Integrating Leadership Styles and Ethical Perspectives*, Canadian Journal of Administrative Sciences, Vol.18, pp.244-256.
- Bayram, N. (2013). *Yapısal eşitlik modellemesine giriş AMOS uygulamaları*, 2. baskı. İstanbul: Ezgi Kitabevi.
- Bezirgan M., (2014). *Turistik Destinasyonda Fiyat Değeri, Aidiyet Ve Davranışsal Niyetler Arasındaki İlişkilerin Belirlenmesi: Kemer Örneği*, Akademik Sosyal Araştırmalar Dergisi, Yıl: 2, Sayı: 5, Eylül, s. 524-539
- Bilgen, A. (2014). *Çalışanların Etik Liderlik Ve Etik İklim Algılamalarının Örgütsel Bağlılıklarına Etkisi: Özel Ve Kamu Sektöründe Karşılaştırmalı Bir Uygulama*, Bahçeşehir Üniversitesi, Sosyal Bilimler Enstitüsü, İnsan Kaynakları Bölümü, Yüksek Lisans Tezi, İstanbul.
- Brower H. H., Schoorman F. D., and Tan H. H., (2000). *A Model Of Relational Leadership: The Integration Of Trust And Leader-Member Exchange*, The leadership Quarterly Vol.11 No.2, 227-250.
- Brown, M.E., Trevino, L.K. and Harrison, D.A. (2005). *Ethical Leadership: A Social Learning Perspective for Construct Development and Testing*. Organizational Behavior and Human Decision Processes, 97, 117-134.



- Büte, M. (2011). *Etik İklim, Örgütsel Güven ve Bireysel Performans Arasındaki İlişki*, Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi, Cilt: 25, Sayı: 1, 171-192
- Byrne, B.M. (2010). *Structural Equation Modeling with AMOS: Basic Concepts, Applications, and Programming, (2nd ed.)*. New York –London: Taylor & Francis Group.
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. New Jersey: Lawrence Erlbaum.
- Costa-Font, M. and Gil, J.M. (2009). *Structural Equation Modelling of Consumer Acceptance of Genetically Modified (GM) Food in the Mediterranean Europe: A Cross Country Study*, Food Quality and Preference , 20(6): 399–409.
- Çevirgen, A., and Üngüren E. (2009). *Konaklama İşletmelerinde Etik İklim Ve İş Tatmini İlişkisi*, 10. Ulusal Turizm Kongresi, 273- 28.
- Demircan, N. and Ceylan, A. (2003). *Örgütsel güven kavramı: Nedenleri ve sonuçları*, Celal Bayar Üniversitesi Yönetim ve Ekonomi Dergisi, Sayı 10 (2), s.139-150.
- Doğan İ. (2015). *Farklı Veri Yapısı Ve Örneklem Büyüklüklerinde Yapısal Eşitlik Modellerinin Geçerliliği Ve Güvenirliğinin Değerlendirilmesi*, Doktora Tezi, Osmangazi Üniversitesi Sağlık Bilimleri Enstitüsü, Biyoistatistik Anabilim Dalı, Eskişehir.
- Eren, S.S. and Hayatoğlu, Ö. (2011). *Etik İklimin Satış Elemanlarının İş Tutumlarına Ve İş Performanslarına Etkisi: İlaç Sektöründe Bir Uygulama*, ZKÜ Sosyal Bilimler Dergisi, Cilt7, Sayı 14, 109-128
- Eyidoğan, Ö. (2013). *Etik İklimin Örgütsel İletişim Üzerindeki Etkisi*, Marmara Üniversitesi, Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Uluslararası Kalite Yönetimi Bilim Dalı, Yüksek Lisans Tezi, İstanbul.
- Fornell, C. and Larcker, D. (1981), *Evaluating Structural Equation Models with Unobservable Variables and Measurement Error*, Journal of Marketing Research , 18, 39-50.
- Joreskog, K. and Sörbom, D. (2001). *Lisrel 8: User's Reference Guide*, Scientific Software International Inc.
- Jose, A., and Thibodeaux M.S. (1999). *Institutionalization of Ethics: The Perspective of Managers*, Journal of Business Ethics, Vol. 22, s. 133-143.
- Kang, J. (2009). *Antecedents and Consequences of Ethical Leadership Of Public Relations Practitioners*, Yayınlanmamış Doktora Tezi, The University of Alabama
- Kim, G.B., Soon, C.P. and Kyoung, J.L. (2007). *A Structural Equation Modeling of the Internet Acceptance in Korea*, Electronic Commerce Research and Applications, 6: 425–432.
- Lee, M. (2009). *Factors Influencing The Adoption of Internet Banking: An Integration of TAM and TPB with Perceived Risk and Perceived Benefit*, Electronic Commerce Research and Applications , 8: 130–141.
- Liu, C., Marchewka, J.T., Lu, J., and Yu, C.S. (2005). *Beyond concern: a privacy-trust behavioral intention model of electronic commerce*, Information & Management. 42, pp. 289- 304.
- Mac Lean, S. and Gray, K., *Structural Equation Modeling in Market Research*, www.Smalwaters.com/whitepapers/marketing, Erişim tarihi 1998.
- Rich, G. A. (1997). *The Sales Manager As A Role Model: Effects On Trust, Job Satisfaction, And Performance of Salespeople*, Journal of the Academy of Marketing Science, 25(4), 319-328.
- Schermelleh-Engel, K., and Moosbrugger, H. (2003). *Evaluating the fit of structural equation models: tests of significance and descriptive goodness-of-fit measures*, Methods of Psychological Research Online, 8(2), 23-74.
- Schumacker, R.E., and Lomax, R.G. (2004). *A beginner's guide to structural equation modeling (2nd ed.)*. Mahlah, New Jersey, London: Lawrence Erlbaum Associates.
- Schweper Jr, C. H. (2001). *Ethical climate's relationship to job satisfaction, organizational commitment, and turnover intention in the salesforce*, Journal of Business Research, 54(1), 39-52.
- Sims, C.A.(1992). *Interpreting the macroeconomic time series facts : The effects of monetary policy*, European Economic Review, Elsevier, vol. 36(5), pp. 975-1000

Steven H. Appelbaum, Kyle J. and Deguire, M.L. (2005). *The relationship of ethical climate to deviant workplace behaviour*", *Corporate Governance*, The international journal of business in society, Vol. 5 Issue: 4, pp.43-55

Tavşancıl, E. (2002). *Tutumların Ölçülmesi ve SPSS ile Veri Analizi*, Nobel Yayıncılık, Ankara.

Torun, M.K. (2013). *Turizm Alanında Lisans Ve Önlisans Eğitimi Veren Kurumlarda Etik İklimin Kuruma Güven Üzerindeki Etkisi*, Düzce Üniversitesi, Sosyal Bilimler Enstitüsü, Turizm İşletmeciliği Anabilim Dalı, Yüksek Lisans Tezi,Düzce.

Yap, B.W. and Khong, K.W. (2006). *Examining The Effects of Customer Service Management (CSM) on Perceived Business Performance via Structural Equation Modelling*, *Applied Stochastic Models in Business and Industry*, 22: 587–605.

Yeşil, S., Mavi, Y. and Ceyhan, S.(2017). *Etik İklim Algısı Ve Bireysel Sonuçlar Üzerine Etkileri*, *Dumlupınar Üniversitesi Sosyal Bilimler Dergisi* Sayı 51, Ocak,19-38



# Recreational Activity Habits of Undergraduate Students and Factors Affecting Their Habits: The Case of Kastamonu University Landscape Architecture Department Students

Merve Kalayci, Sevgi Ozturk

## 1. Introduction

In today's industrialized country societies, people have to work like a machine sparing no time for themselves. This adversely affects individuals in terms of both their psychology and physiology and causes them to be unhealthy individuals. Unhealthiness starting from the individual gradually becomes a communal problem (Ergül, Alp, & Çamlıyer, 2015). To prevent this, one needs to learn how to manage time and live according to a program (Güngörmüş, Yetim, & Çalık, 2006; Ayyıldız Durhan, Akgul, & Karaküçük, 2017). Individuals who are able to manage time and live according to a program will have time for themselves after carrying out the activities they are obliged to carry out in order to maintain their lives. In leisure time, the individuals carry out the activities they volunteer to do; thus they can experience both psychological relief and increase their productivity during working hours (Huang & Carleton, 2003, Önder, 2003, Güngör & Cengiz, 2006, Tel & Köksalan, 2008, Sabbağ & Aksoy, 2011, Tütüncü, Aydın, Küçükusta, Avcı, & Taş, 2011). As Tümer (1975) and Uzun & Altunkasa (1991) stated, activities voluntarily carried out by people in their leisure time can be defined as recreational activities (Mansuroğlu, 2002).

In the most general and most understandable way, recreation can be defined as activities carried out in "leisure time" outside working hours. As people perform recreational activities, they become aware of their potential and also satisfy the need for self-realization in Maslow's hierarchy of needs (Figure 1). This is because recreation allows individuals to discover themselves and develop their potential (Sevil, 2012).

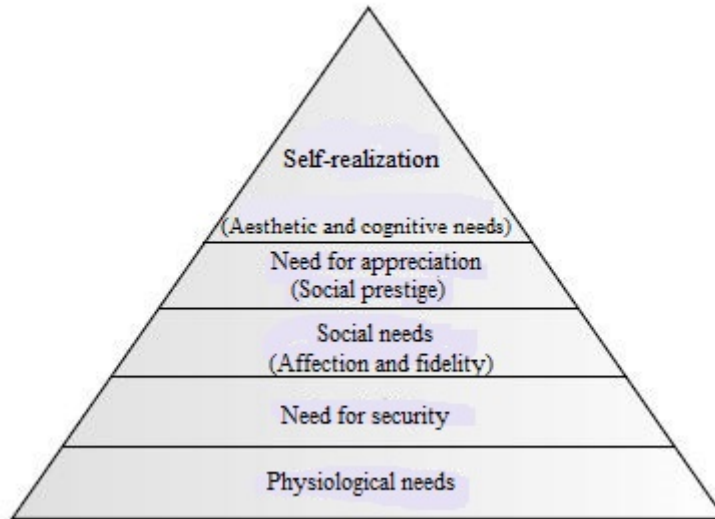


Figure 1. Maslow's hierarchy of needs (Bourdurst, 2001, Cited by Sevil, 2012).

Recreational activities vary according to age, sex, time, place, and are influenced and varied by many factors (Kaya, 2016). Individuals' preferences and satisfaction levels are also among the factors that cause the diversification of these activities (Uzun, Müderrisoğlu, & Akıncı Kesim, 2005). In order to perform all these activities, the most essential condition is that the individual has the time to perform these activities (Kılıçaslan, 2008; Tütüncü et al., 2011).

According to Kraus (1998), the concept of leisure time, which includes the concept of free time in the definition of recreation, is defined as the time apart from the time spent on sleeping, compulsory activities and work. Free time is, on the other hand, the time left after the individual has carried out his/her domestic, communal or professional duties that must be carried out to continue one's life (Sevil, 2012).

As Nixon (1969) and Güler (1978) mentioned, the working capacity is as important for an individual as the time he/she can spare for him/herself (Sevil, 2012). In order for the working efficiency of an individual to increase; it is necessary for the individual to have time to feel free and to complete himself in this way (Yerlisu Lapa, 2013; Karaküçük, 2014).

The concept of leisure time includes the concept of recreation. According to Karaküçük (1999); recreational activities can only be carried out in leisure time (Sevil, 2012). According to Aktaş (2008); recreation is the whole of the activities that increase the quality of life of individuals and that individuals enjoy doing without harming any natural or cultural values (Kalaycı & Uzun, 2015).

Recreation can be divided into 6 classes. These classes and their descriptive properties are given in table 1.

**Table 1.** Types of recreation (adapted from Sevil, 2012)

RECREATION TYPES				DESCRIPTIVE PROPERTIES
According to the Participation in the Activities	to	the	Active	Active, Dynamic Activities
			Passive	Watching, Being an Audience
According to Local Classification	to	Local	Urban	Within urban boundaries
			Rural	Outside the City Center
In terms of Space			Outdoors	Outdoors
			Indoors	Indoors
According to the Number of Participants	to	the	Individual	Single
			Group	As a Community
In terms of Function			Commercial	Presented by Institutions and Organizations
			Social	Performed for Socialization
			Aesthetics	Visiting exhibitions, listening to music
			Intellectual	Passive Activities for Learning and Intellectual Development
In terms of Time			Every day	In the neighborhood, Short Termed Activities performed in Holidays, Festivals etc.
			Holiday	
			Variable	Activities that Retired People Do

There are many factors that affect the ability of individuals to participate in recreational activities. The most significant of these factors are time and material opportunities.

Like many undergraduate programs where the applied courses dominate, undergraduate students of the Department of Landscape Architecture suffer from both temporal and material difficulties because of the way the courses are taught and the obligations. For this reason, the recreational habits of the students and the factors affecting these habits vary. Within the scope of this study, the recreational activity habits of undergraduate students of Landscape Architecture Department of Kastamonu University were examined and the factors that are effective were evaluated statistically.

## 2. Method

Undergraduate education is classified as undergraduate 1 (15), undergraduate 2 (15), undergraduate 3 (15), undergraduate 4 (16). It was determined according to Özdamar (2003) that as the universe of the study is the 163 students at the Department of Landscape Architecture of Kastamonu University; there was a need for 61 questionnaires with 10% of error margin, 95% of confidence level. A questionnaire

was conducted with 61 participants and a chi square analysis in the SPSS 20.0 package program was conducted to the data from the first part of the questionnaire. In the chi square analysis, time allocated to recreation according to gender and educational status, which activities come to mind when speaking about recreation, and the reasons for performing recreational activities and the frequency with which participants performed recreational activities were investigated.

In the second phase of the study, the participants were asked a question of 25 proposals in a 4-point Likert scale. They were asked to respond to the question between 0 and 3 (No idea- Disagree- Neither Disagree nor Agree- Agree).

For the evaluation of this part of the questionnaire, firstly, correlation analysis was performed in the SPSS 20.0 package program in order to reveal the relation between education levels.

In the next step; it was revealed which of the Likert scale the proposals evaluated in the Likert-scale got close to on average.

### 3. Findings

To ensure gender balance among the participants, 31 female students and 30 male students were selected.

Of the participants, 15 live with home mates, 6 with their family, 37 at dorm and 3 live with their relatives.

Participants were grouped in 3 groups according to their income source types: 30 received scholarships/ credits, 11 were employed in a job and 20 received financial support from their families. According to the amount of income, the participants were grouped in the following way: 12 people less than 500 TL, 29 people between 501-1000 TL, 12 people between 1001 - 1500 TL and 8 people more than 1501 TL.

Of the participants, 15 stated that; they did not spend any time to recreational activities; 35, 1 or 2 times a week; 6, 3 or 5 times a week; and 5, everyday.

To the question about the reasons for recreational activities, the option for fun was opted by 54 participants, for relaxation by 55, for spending time with friends by 51; for excitement by 27; for health by 32; for sports by 36; for spending time with family by 34; for being alone by 36; for being alone with the nature by 55; for working off energy by 29 participants. The option 'for relaxation' opted by 55 participants was the one opted the most. The least opted option was, on the other hand, the option 'for excitement' which was opted by 27 participants. To the question which recreational activities the participants preferred; 49 participants responded as going for a walk in the park/woods; 43 cycling, 24 skateboarding/skating, 38 playing ball games, 35 photography, 17 bird watching , 31 trekking , 15 canyoning, 34 camping, 17 visiting caves, 28 visiting museums-ruins. The option that was least opted was canyoning whereas going for a walk in the park/woods was the most opted option. Participants also think that the activities of playing with painting boxes and dancing are also recreational activities besides the options given in the questionnaire. In the context of the analyzes made, a square analysis was conducted to determine the relationship between education, gender, amount of income, income source and frequency, and what activities come to the minds of participants when talking about recreational activities (Table 2).

**Table 2.** Significant differences between recreational activities and other factors

RECREATIONAL ACTIVITIES	Gender	Education	Amount of Income	Income Source	Frequency
Skating- Skateboarding	0.012	0.008			0.011
Trekking		0.044			
Visiting museum- ruins		0.006		0.009	0.003
Going for a walk in the park/woods			0.048		0.006
Cycling			0.033		
Canyoning			0.004		
Bird watching				0.006	
Camping				0.002	

There was a significant difference only in the "Skating-Skateboarding" option according to gender. 45.2% of females and 76.7% of males do not think of "Skating-Skateboarding" as recreational activities.

Significant differences were found in "Skating-Skateboarding", "Trekking", "Visiting Museums-Ruins" activities according to educational level. 26% of the first graders, 66.7% of the second graders, 53.3% of the third graders and 12.5% of the fourth graders selected the "Skating-Skateboarding" activity whereas 40% of the first graders 26.7% of the second graders, 73.3% of the third graders and 62.5% of the fourth graders selected the "Trekking" activity. 26.7% of the first and second graders, 46.7% of the third graders and 81.2% of the fourth graders regarded "Visiting Museum-ruins" as a recreational activity.

When the recreational activities are analyzed according to the amount of income; there was a significant difference in the "Going for a walk in the Park/ Woods", "Cycling" and "Canyoning" options.

Significant differences were found in "Visiting Museums-ruins", "Bird watching" and "Camping" options according to income source.

There was a significant difference in the "Skating-Skateboarding", "Visiting Museums-ruins", "Going for a walk in the Park/ Woods" options according to the frequency with which the participants spared time to the recreational activities. It was determined that as the frequency increased, the preference rate of "Going for a Walk in the Park/ Woods" option decreased. The "Skating-Skateboarding" option is preferred by 83% of participants who perform 2-3 or more recreational activities per week whereas "Visiting Museums-ruins" option is less preferred as the frequency of recreational activities increased.

Subsequently, a chi-square analysis was conducted to determine the relationship between education, gender, amount of income, income source and frequency, and the reason why participants performed recreational activities (Table 3). There was no significant difference according to gender.

**Table 3.** Significant differences between reasons for recreational activities and other factors

Reason	Amount		Income	
	Education	of Income	Source	Frequency
<b>For excitement</b>	0.08	0.006		
<b>For sports</b>	0.02	0.041	0.003	0.038
<b>For being in nature</b>	0.039			
<b>For working out energy</b>	0.006			0.014
<b>For being alone</b>			0.005	
<b>For fun</b>				0.008
<b>For health</b>				0.049

When the relationship between the reasons for performing recreational activities and the level of education is analyzed, there was a significant difference in "for excitement", "for sports", "for being in nature" and "for working out energy" options. It was determined that the preference of "for being in nature" increased as the education level increased.

When the reasons for recreational activities are examined according to the amount of income, there was a significant difference in "for excitement" and "for sports" options.

When the reasons are examined by income sources, there was a significant difference in "for sports" and "for being alone" options. It was determined that 76.7% of the participants whose income source is "scholarship-credit" performed recreational activities for "sports" whereas only 18.2% of the participants who received incomes from working in a job preferred the "for sports" option.

When the options selected by the participants as the reason for performing recreational activities are examined according to the frequency with which they performed the activities, there was a significant difference in the "for sports", "for working out energy", "for fun" and "for health" options. As the frequency increased, the recreational activity was less performed "for fun". These 3 options, for which significant differences were found, were mostly performed "once or twice a week" by the participants.

Correlation analysis indicated significant relation ( $p < 0.001$ ). According to Kendall's tau-b value; moderate correlation was found between undergraduate 1 and undergraduate 2 participants ( $r = 0.598$  coefficient value), between undergraduate 1 and undergraduate 3 participants ( $r = 0.617$  coefficient value) and between undergraduate 1 and undergraduate 4 participants ( $r = 0.608$  coefficient value) whereas a weak correlation was found between undergraduate 2 and undergraduate 4 participants ( $r = 0.447$  coefficient value) and undergraduate 3 and undergraduate 4 participants ( $r = 0.482$  coefficient value). This indicates that the difference between undergraduate 1 and other participants is greater whereas the difference between undergraduate 2 and 3 levels showed less difference with other grades.

In the next step; it was revealed which of the Likert scale the proposals evaluated in the Likert-scale got close to on average. Since there was no score value of the participants who responded "no idea", these participants were excluded from the table 4 and the averages of the values given by the participants who had an idea were shown.



	a	No ide	N umb er o f Pers ons	T otal Score	Ap proximate Av erage
0	Recreational activity makes the person happy.	6	5 6	1 64	2.9 3
1	Recreational activity is tiring.	3	5 8	9 1	1.5 7
2	Recreational activity is indispensable for a person.	6	5 6	1 06	1.8 9
3	I spare time for recreational activity only when I have free time.	1	6 0	1 55	2.5 9
4	Recreational activity is relaxing.	2	5 9	1 57	2.6 6
5	Recreational activity is a way of mental resting.	2	5 9	1 50	2.5 4
6	I allocate budget for recreational activity.	3	5 8	1 37	2.3 6
7	Recreational activity is performed with friends.	2	5 9	1 14	1.9 3
8	Recreational activity has an important place in my life.	5	5 6	1 28	2.2 9
9	Recreational activity is performed only at weekends.	5	5 6	6 6	1.1 7
10	Recreational activity can be performed without spending money as well.	4	5 7	1 50	2.6 3
11	Recreational activity is a lifestyle.	4	5 7	1 36	2.3 9
12	I have no time to perform any recreational activity.	3	5 8	1 11	1.9 1
13	I have no money to perform any recreational activity.	2	5 9	1 05	1.7 8
14	There are no places where I can perform recreational activities.	2	5 9	1 42	2.4 1
15	Recreational activity allows people to socialize.	0	6 1	1 70	2.7 9
16	Recreational activity psychologically comforts people.	2	5 9	1 70	2.8 8
17	Recreational activity is performed only outdoors.	3	5 8	9 9	1.7 1
18	Recreational activity can be performed indoors.	3	5 8	1 18	2.0 3
19	Recreational activity makes people active.	2	5 9	1 63	2.7 6
20	I spare time for recreational activities every day.	3	5 8	8 5	1.4 6
21	I spare time for recreational activities several times a week.	1	6 0	1 49	2.4 8

**Table 4.** The averages of the proposals in the Likert- type scale

- Recreational activity makes the person happy.
- I spare time for recreational activity only when I have free time.
- Recreational activity is relaxing.
- Recreational activity is a way of mental resting.
- Recreational activity can be performed without spending money as well.
- Recreational activity allows people to socialize.
- Recreational activity psychologically comforts people.
- Recreational activity makes people active.
- Transportation is important for recreational activity.

- Recreational activity is performed only at weekends.
- I spare time for recreational activities every day.

As the last stage, the percentages of the Likert-scale responses of the participants according to their educational levels are given in table 5.

Undergraduate				Undergraduate				Undergraduate				Undergraduate			
1(%)				2(%)				3(%)				4(%)			
No idea	Disagree	Neither agree.	Agree	No idea	Disagree	Neither agree.	Agree	No idea	Disagree	Neither agree.	Agree	No idea	Disagree	Neither agree.	Agree
0	0	6,7	3,3	0,0	0	0	0,0	3,3	0	0	6,7	0	0	0	0,0
0	6,7	0,0	3,3	3,3	0,0	0,0	7	7	0,0	7	6,7	0	6,3	1,3	2,5
0,0	6,7	6,7	6,7	3,3	3,3	3,3	0,0	7	0,0	6,7	6,7	0	8,8	8,8	2,5
7	7	0,0	6,7	0	3,3	7	0,0	0	3,3	3,3	3,3	0	0	0	0,0
0	0	3,3	6,7	3,3	0	0,0	6,7	0	0	0,0	0,0	0	2,5	1,3	6,3
7	3,3	6,7	3,3	7	3,3	3,3	6,7	0	0	0,0	0,0	0	0	3,8	6,3
0,0	0,0	6,7	3,3	0	3,3	0,0	6,7	0	0,0	0,0	0,0	0	0	0,0	0,0

		(	2	4	3			2	4		4		4		6	2	0
	,0	6,7	<b>0,0</b>	3,3	3,3	3,3	6,7	<b>6,7</b>	,0	0,0	3,3	<b>6,7</b>	,0	<b>8,8</b>	1,3	,0	
		(	2	2	3		(	(	2	(	(	2	1		1		1
	,7	6,7	<b>3,3</b>	<b>3,3</b>	,7	,7	6,7	<b>0,0</b>	,7	,7	3,3	<b>3,3</b>	2,5	8,8	<b>0,0</b>	8,8	
		(	1	(	6		(	(		(	2	(	(	1	(	0	
<b>0</b>	,7	<b>6,7</b>	,0	,7	3,3	<b>6,7</b>	,7	3,3	3,3	<b>6,7</b>	0,0	,0	,0	<b>00,0</b>	,0	,0	
		(	(	(	8		2	2	1		2	2	4	(	0	(	1
<b>1</b>	,7	,0	,7	<b>6,7</b>	,0	0,0	6,7	<b>3,3</b>	0,0	6,7	3,3	<b>0,0</b>	,0	,0	,0	<b>00,0</b>	
		(	2	2	5		2	2	4	(	4	(	1	(	0	2	6
<b>2</b>	,0	3,3	3,3	<b>3,3</b>	0,0	3,3	6,7	<b>0,0</b>	,7	0,0	,0	<b>3,3</b>	,0	,0	7,5	2,5	
		(	2	1		4	2	2	4	(	4	4	1	(	1	6	
<b>3</b>	,0	3,3	<b>3,3</b>	3,3	3,3	<b>6,7</b>	6,7	3,3	,7	<b>0,0</b>	<b>0,0</b>	3,3	,0	8,8	8,8	2,5	
		(	2	(	2	(	4	2	2	(	2	(	(	3	(	6	
<b>4</b>	3,3	<b>3,3</b>	,7	6,7	,0	<b>6,7</b>	6,7	6,7	,0	<b>3,3</b>	0,0	,7	,0	7,5	,0	2,5	
		(	2	4	4		2	2	4	(	2	2	1	(	0	8	
<b>5</b>	,0	0,0	<b>0,0</b>	<b>0,0</b>	3,3	0,0	6,7	<b>0,0</b>	,0	0,0	6,7	<b>3,3</b>	,0	,0	8,8	<b>1,3</b>	
		(	(	(	1		2	2	1	(	2	(	1	(	0	8	
<b>6</b>	,0	,0	,0	<b>00,0</b>	,0	3,3	3,3	<b>3,3</b>	,0	3,3	,7	<b>0,0</b>	,0	,0	2,5	7,5	
		(	(	2	8		(	(	2	(	(	(	1	(	0	1	
<b>7</b>	,0	,0	3,3	<b>6,7</b>	3,3	,7	,7	<b>3,3</b>	,0	,7	,0	<b>3,3</b>	,0	,0	,0	<b>00,0</b>	
		(	2	4	2		(	2	2	4	4	2	2	(	5	1	
<b>8</b>	,7	6,7	<b>0,0</b>	6,7	,0	<b>6,7</b>	3,3	0,0	3,3	<b>6,7</b>	0,0	0,0	,0	<b>0,0</b>	7,5	2,5	
		(	2	2	(	2	(	(	2	(	4	2	2	(	1	3	
<b>9</b>	,7	<b>3,3</b>	<b>3,3</b>	6,7	,7	6,7	,7	<b>0,0</b>	,7	<b>6,7</b>	6,7	0,0	,0	8,8	<b>0,0</b>	1,3	
		(	(	2	8		(	2	(	(	(	(	1	(	0	6	
<b>0</b>	,0	,0	0,0	<b>0,0</b>	3,3	,7	3,3	<b>6,7</b>	,0	,7	,0	<b>3,3</b>	,0	,0	1,3	<b>8,8</b>	
		(	2	0	(	2	2	2	(	(	2	(	(	8	(	1	
<b>1</b>	3,3	<b>0,0</b>	6,7	,0	,7	<b>3,3</b>	<b>3,3</b>	6,7	,0	<b>6,7</b>	6,7	,7	,0	7,5	,0	2,5	
		(	2	7	(	2	2	2	(	(	2	(	(	0	5		
<b>2</b>	,0	3,3	3,3	<b>3,3</b>	,7	6,7	3,3	<b>3,3</b>	,0	3,3	0,0	<b>6,7</b>	,0	,0	<b>0,0</b>	<b>0,0</b>	
		(	2	(	8		(	2	2	4	4	2	(	0	6		
<b>3</b>	,7	3,3	,0	<b>0,0</b>	,7	3,3	3,3	<b>6,7</b>	,0	6,7	3,3	<b>0,0</b>	,0	,0	1,3	<b>8,8</b>	
		(	2	4	3	(	2	2	4	(	2	4	(	1	6		
<b>4</b>	,0	0,0	<b>6,7</b>	3,3	,7	0,0	3,3	<b>0,0</b>	,0	3,3	0,0	<b>6,7</b>	,0	8,8	8,8	2,5	
		(	2	2	5	(	2	2	1	(	(	2	1	(	1	6	
<b>5</b>	,0	6,7	0,0	<b>3,3</b>	,0	0,0	6,7	<b>3,3</b>	,0	,0	3,3	<b>6,7</b>	,0	8,8	8,8	2,5	

When the percentage results are examined,

it can be seen that the proposal "recreational activity is indispensable for a person" was mostly agreed by undergraduate 2 students whereas mostly disagreed by undergraduate 4 students.

It can also be seen that the proposal "recreational activity is performed with friends" was mostly agreed by undergraduate 2 and undergraduate 3 students whereas undergraduate 4 students mostly disagreed with this proposal.

The participants were between "agree" and "disagree" responses for the "recreational activity has an important place in my life" proposal.

It was seen that undergraduate 1-2-3 students mostly disagreed and neither agreed nor disagreed with the "I have no time to perform recreational activities" and "I have no money to perform any recreational activity" whereas undergraduate 4 students mostly agreed.

While undergraduate 1 students mostly neither agreed nor disagreed with the "recreational activity is performed only outdoors" proposal, undergraduate 2-3-4 students mostly disagreed with this proposal.

The proposal that "recreational activity can be realized indoors" changed according to each grade level whereas undergraduate 3 students mostly disagreed with this proposal.

Only undergraduate 1 students neither agreed nor disagreed with the "season is important for recreational activity" whereas other students mostly agreed with this proposal.

#### 4. Conclusion

In this study, the recreational activities of the students of the Department of Landscape Architecture of Kastamonu University and the factors affecting these activities were tried to be determined. Over the students selected as participants, it will be possible to obtain findings about the students of departments such as Landscape Architecture where applied courses dominate.

31 female and 30 male students were surveyed in the study as the sample. It was determined that these students mainly stayed in dorms. These students usually obtain income through scholarship - credit and approximately half of them receive an income between 501-1000 TL. Half of the participants spare time to recreational activities about once or twice a week.

Almost all of the participants perform recreational activities for relaxing and for being in nature. Most of the participants responded 'going for a walk in the park/ woods' to the question of what comes to their mind when speaking of recreational activity. There was not much difference in preferences according to gender, as expected. Participants' preferences for recreational activities vary according to their educational status. In particular, the option of visiting museums-ruins is more preferred as the level of education increases. However, as the amount of time allocated to recreational activities increased; the option of visiting museums-ruins was selected at a minimum level. It is thought that this result is due to the fact that students think that it is sufficient to visit any museum-ruin once.

When the reasons why the participants performed recreational activities are examined; there was no significant difference in terms of gender. This result is parallel to the expected result. This is because the pleasure individuals get from recreational activities is not about gender but about individual preference. It is seen that the number of participants who performed recreational activities in order to be in nature increases more as the level of education increases.

There was a significant correlation ( $p < 0.001$ ) between the participants in the correlation analysis according to their education levels. This suggests that whatever the level of education, there is a relationship between recreational habits and the factors that influence it.

When the proposals in the Likert scale are evaluated according to the percentage ratios, it was revealed as expected that recreational activities make the individual happy and active and allow them to relax, socialize and that transportation is important for these activities. Individuals are aware that they can perform recreational activities without paying any price. In addition, another proposal that was selected at a high level was that individuals can perform recreational activities when they have free time, which is also reflected in the definition of recreation.

The proposal that recreational activities can only be performed at weekends was also selected at a low level, which was also in line with the expectations.

Changes according to the education level in the proposals are an indication that the higher the education level, the better the understanding of the concept of recreation. However, the proposals 'I have no money-time to perform any recreational activities- were mostly preferred by undergraduate 4 participants. The reason for this is believed to be the fact that the participants have heavy applied courses and have to spend a lot of money for these courses in order to meet the requirements for graduation. The proposal that 'recreational activity is indispensable for a person' was increasingly less preferred as the grade level increased.

The reason for this is thought to be the fact that participants who spend a full academic year without sparing time to recreational activities are at this level of education.

In the light of all these results, it can be concluded that young people who make up the participant group do not manage their time very well and they are not aware of the fact that the place they can learn time-management best is the university. In the departments such as Landscape Architecture, Architecture, City and Regional Planning, Interior Architecture where applied courses dominate -and as in all the other departments- , it should not be forgotten that students should have an efficient

education life as well as graduate as healthy individuals and get jobs as citizens beneficial to the whole society. In this regard, a big responsibility falls on the shoulders of academicians. It is necessary that students should be given support about the recreational activities through which they can self-actualize and that recreational activities should be made more attractive for them through, if necessary, showing them different activities than the usual ones. Most importantly, students should be supported on time management and they should be taught that if they can make an efficient planning, they will have time to spare to anything they want. It should not be forgotten that students who are conscious about programmed life style will be better and more qualified individuals in the society.

## 5. Acknowledgment

We would like to thank TÜBİTAK 2229 project titled "Analytic Nature-Clustering and Ordination Techniques" for the methods used in this study.

## 6. References

- Ayyıldız Durhan, T., Akgül, B. M., & Karaküçük, S. (2017). Rekreatif Amaçlı Yüzme Sporuyla Uğraşan Bireylerin Boş Zaman Yönetimleri Üzerine Bir Değerlendirme. *Atatürk Üniversitesi Beden Eğitimi ve Spor Bilimleri Dergisi*, Cilt: 19 (4) : 8-16.
- Ergül, K., Alp, H., & Çamlıyer, H. (2015). Determination of the Interest and Participation Level for the Youth of University Sports Recreation Activities. *Journal of Tourism Theory and Research*, Volume: 1(2) : 76-83.
- Güngör, S., Cengiz, T. (2006). Artvin İlinin İklim Konforuna Sahip Rekreasyon ve Turizm Alanları. *Kafkas Üniversitesi Artvin Orman Fakültesi Dergisi*, 7(1): 69-80
- Güngörmüş, A. H., Yetim, A. A., & Çalık, C. (2006). Ankara'daki Beden Eğitimi Ve Spor Yüksekokullarında Görev Yapan Öğretim Elemanlarının Boş Zamanlarını Değerlendirme Biçimlerinin Araştırılması. *Kastamonu Eğitim Dergisi*, Cilt:14(1) : 285-298.
- Huang, C.Y., & Carleton, B. (2003). The Relationships among Leisure Participation, Leisure Satisfaction, and Life Satisfaction of College Students in Taiwan. *Journal of Exercise Science and Fitness*, 1(2): 129-132.
- Kalaycı, M., & Uzun, O. (2015). Maden Alanları Peyzaj Onarım Çalışmaları ve Bazı Rekreasyonel Aktiviteler. *III. Rekreasyon Araştırmaları Kongresi Bildiri Kitabı*, s: 369-378, Eskişehir.
- Karaküçük, S. (2014). Rekreasyon Boş Zamanları Değerlendirme, s: 30, Bağırhan Yayınevi, Ankara.
- Kaya, S. (2016). The Relationship between Leisure Satisfaction and Happiness among College Students. *Universal Journal of Educational Research* 4(3): 622-631.
- Kılıçaslan, Ç. (2008). Ortaca Kenti Rekreasyon Alanlarının Mevcut Durumu ve Muğla Üniversitesi Ortaca Meslek Yüksekokulu Öğrencilerinin Rekreasyon Alanlarına Yönelik Beklentileri. *Düzce Üniversitesi Ormancılık Dergisi*, Cilt: 4(1-2) : 3-16.
- Mansuroğlu, S. (2002). Akdeniz Üniversitesi Öğrencilerinin Serbest Zaman Özellikleri ve Dış Mekan Rekreasyon Eğilimlerinin Belirlenmesi. *Akdeniz Üniversitesi Ziraat Fakültesi Dergisi*, 15(2) : 53-62.
- Önder, S. (2003). Selçuk Üniversitesi Öğrencilerinin Rekreasyonel Eğilim ve Taleplerinin Belirlenmesi Üzerinde Bir Araştırma, *Selçuk Üniversitesi Ziraat Fakültesi Dergisi*. 17 (32): 31-38.
- Özdamar, K. (2003). Modern bilimsel araştırma yöntemleri. s: 116-118. Kaan Kitabevi, Eskişehir.
- Sevil, T. (2012). Boş Zaman ve Rekreasyon Yönetimi, Anadolu Üniversitesi Yayın No:2497, Eskişehir.
- Tel, M., & Köksalan, B. (2008). Öğretim Üyelerinin Spor Etkinliklerinin Sosyolojik Olarak İncelenmesi (Doğu Anadolu Örneği). *Fırat Üniversitesi Sosyal Bilimler Dergisi*, 18(1) : 261-278.
- Tütüncü, Ö., Aydın, İ., Küçükusta, D., Avcı, N., & Taş, İ. (2011). Üniversite Öğrencilerinin Rekreasyon Faaliyetlerine Katılımını Etkileyen Unsurların Analizi. *Hacettepe Journal of Sport Sciences*, 22 (2), s: 69-83.
- Uzun, S., Müderrisoğlu, H., & Akıncı Kesim, G. (2005). Kentsel Alanlardaki Parklarda Kullanıcı Memnuniyeti: Düzce İnönü Parkı Örneği. *Abant İzzet Baysal Üniversitesi Ormancılık Dergisi*, 1(2) : 111-124.

Recreational Activity Habits of Undergraduate Students and Factors Affecting Their Habits

Yerlisu Lapa, T. (2013). Life Satisfaction, Leisure Satisfaction and Perceived Freedom of Park Recreation Participants. *Procedia - Social and Behavioral Sciences* (93): 1985-1993.



# Imputed Rental Value Implementation for Real Property Income in Turkey

Zeynep Arikan

## 1. Introduction

Articles 70 and 74 of 193 Income Tax Act consist of clauses concerned with real property capital incomes. Accordingly, incomes gained from leasing of the properties and rights listed in Article 70 by the owners, tenants, possessors, servitude and usufruct right holders or leaseholders are real property capital incomes. Acquisition of these incomes is based on the principle of “collection”.

“Imputed Rental Value” implementation is the basis for income collection in real property capital incomes. “Imputed rental value” administration is settled in Article 73 of 193 Income Tax Act. Imputed rental value implementation is a security measure practiced for real property capital incomes and is intended to prevent fictitious reporting of rent incomes presumptively.

The only and material tax security measure of our Income Tax Act is the “imputed rental value” implementation. It is a measure intended against claims stating that individuals have not received rents for the properties and rights they have leased or they have leased these out for a low price. Without prejudice to the exceptions, rental values of the leased out properties and rights shall not be lower than the imputed rental value suggested in the concerned article. This implementation aims to tax the sums that are attempted to leave as unrecorded and unreported.

Imputed rental value included in Article 73 of ITA is not implemented in some cases. The article devising was discussed in the study and the issues concerning the case were scrutinized.

## 2. What is Imputed Rental Value?

Imputed rental value is essentially a security administration. Lawmaker has aimed to tax the sums that are intended to be left as unrecorded and unreported based on the assumption that real properties cannot be allowed to be benefited by others without pay, excluding the individuals and cases specified in the law provision (Kara, 2016).

Pursuant to ITA, “imputed rental value” that shall be declared as real-like in place of the real rent is concerned as gross revenue in case real properties are leased out “at no cost” or for “low cost”. Imputed rental value is now regarded as the rent of these properties and rights.

Imputed rental value is an autoregulation administration included in the system to prevent understating of the sums in leasing procedures and to prevent tax base losses (Gürboğa). Imputed rental value implementation is resorted only when there are presumptions concerning that rental revenues do not reflect the real case or in case the investigation persons claim it. Hence, it is implemented in specific cases. Fictitious cases are the basis for this implementation.

## 3. Cases for Which Imputed Rental Value shall be Implemented and Not Implemented

As per Article 73/2 of ITA, imputed rental value shall not be implemented for the cases listed hereunder. The listed cases are exceptional cases where imputed rental value shall not be implemented. These are as follows:

- 1- Allowing occupation of deserted real properties at no cost by others. For example, leaving a summer house to the housing estate custodian in winter for protection purpose.
- 2- Assigning occupation of buildings to the lineage (mother, father, grandmother, and grandfather), offspring (children, grandchildren) or siblings of property owners. Imputed rental value shall not be estimated for only one of these assigned buildings. Imputed rental value shall not be estimated for only one of the spouses in case the siblings are married.
- 3- Occupation of the same house or apartment by the relatives alongside the property owner. For instance, in case an individual lives in the same residence with his aunt, the rental value is not implemented but, in case a separate residence is assigned to the aunt, imputed rental value is



implemented. The issue to be paid attention to here is the occupation of the same residence by the relatives (blood and affinity) together with the property owner. Kinship by blood is a relation based on consanguinity. Mother, father, siblings, uncles, aunts, paternal aunts, and persons of a common root are included in this kinship called consanguinity. Affinity relationship by marriage is a kinship occurred by desponsation. This kinship consists of relatives of the two spouses.

- 4- Leasing made by departments included in the general budget and annex budget administrations, provincial private administrations and other public organizations and establishments.

The fact that needs to be paid attention to in the cases specified in Articles 1, 2 and 3 is the occurrence of the “assigning to occupation” provision. Thus, assigning of a real property as a business place is not included here. In another words, imputed rental value shall be implemented for a real property assigned as a business place.

Examples of the cases not included in these exceptional cases and the cases for which no documentable rent is received and hence requiring reporting based on imputed rental value are the “assigning of a business place for a child”, “letting the use of the apartment of a person by his company at no cost”, “allowing the use of an apartment as a business place or an apartment by his relatives including his sibling’s children or paternal aunts and uncles, aunts and uncles at no cost (excluding the ones left out of the concept of lineage, offspring and sibling) (Doğrusöz, 2016).

The cases for which imputed rental value shall be implemented are listed in Article 73 of ITA. According to this Article, imputed rental value is;

- Allowing the use of the leased out properties and rights by others at no cost,
- The rental values of the leased out properties and rights are “lower” than the imputed rental value.

#### **4. Estimation Method of Imputed Rental Value**

In Article 73 of ITA, estimation of imputed rental value of buildings and lands and other properties and rights is subject to different methods.

##### **Imputed Rental Value of Buildings and Lands**

Imputed rental value of buildings and lands is a rent estimated and designated by concerned authorities or courts principally. In case there is no rent estimated or designated for a building and land by the said authority, the imputed rental value for these buildings and lands is 5% of the tax value specified in Tax Procedure Law. Tax value is the sum establishing the property tax base pursuant to Article 29 of Property Tax Law.

##### **Imputed Rental Value for Other Properties and Rights**

Imputed rental value for other properties and rights is 10% of these properties and rights primarily in case the cost price is known. In case the cost price of the properties and rights is not known, it is 0% of the value stated as per the provisions of Tax Procedure Law concerning the assessment of the possessions.

#### **5. Legal Characteristic of Imputed Rental Value**

Even if there is no collection or there is lower collection in comparison to its equivalent in imputed rental value implementation, it is possible that “minimum rental value that needs to be acquired from the leased out properties and rights as per the legal provisions may be estimated”.

For example, the imputed rental value of the apartment of Mr. A with a property tax of TL 600,000 in 2018 and with a property tax paid by Mr. A based on this value is;

$$600.000 \times 5\% = \text{TL } 30.000.$$

In case Mr. A has actually acquired TL 20,000 instead of TL 30.000 TL, the sum that he should report is TL 30,000. In this case, there are two choices as;

- Mr. A must report based on the imputed value,
- Mr. A must report based on the revenue he acquired in place of the imputed value.

It is not right and just to say to a person who really acquired TL 20.000 that he should increase the rent of his renter by showing the imputed rental value as a reason and to increase his tax return in this

way because taxing the taxpayers based on an unreal value is against the taxing principles of our Constitution as per the tax liability article (Article 73).

Pursuant to the Internal Circular of 1991/1 issued by the Ministry of Finance, when it is proven that rental revenue is acquired as lower than the imputed value based on documents including the rental contract, bank receipt for the payment or transfer voucher and such or based on the renter's statement, imputed rental value comparison implementation is not resorted to additionally. The said proof procedures are only resorted to in case they are requested by the authorities during the tax investigation or when there are reasons that the reported rental value does not reflect the real case.

The Council of State has a resolution stating that "the imputed rental value implementation shall not be resorted to in case the rental value is proven by documents including the rental contract, payment or transfer voucher (4<sup>th</sup> Council of State, 1991/1585).

Tax Administration had argued that the sum to be estimated based on the imputed rental value shall be considered as the real sum of the real property capital income in case the persons lease out their properties and rights at no cost or for a low price. Tax Administration had thought that the imputed rental value implementation served for the purpose that there may be no reporting made lower than the imputed value. Therefore, fined assessments were resorted to for the reports made lower than the imputed value.

There is no clause stating that the income acquired from the real property by persons may never be lower than the imputed value. There are righteous reasons for reporting lower than the imputed value. These are as follows;

- Articles 1 and 2 of Income Tax Act consist of the definition and components of income. Income tax is collected based on the "real incomes" of persons. In other words, unreal or non-acquired incomes cannot be taxed. Article 2 of ITA has listed real property incomes as the fifth income component. In case you have such an income, you are taxed and if you don't have it, you are not taxed. It contradicts the principle of taxing payment power by assuming that the person has real property capital revenue.
- When persons lease out their real property, they sign a rental contract and this case requiring taxing occurs by signing this rental contract. A rental contract includes the rental value. As specified in Article 8 of Tax Procedure Law, contracts bind the tax administration excluding the ones transferring their tax liability or tax obligation and this has to be taken as the basis for taxation. However, fictitious or veiling cases are exceptions and in case the tax administration proves that the real power of the parties or the real case is not reflected, these are exceptions. In such situations, the administration has to trust and consider their contracts.
- Pursuant to Article 3 of Tax Procedure Law, an incident causing the tax and the real situation of the procedures concerning this incident are the principles in taxing. The real characteristic of the procedure can be proven by any type of proof excluding the "promissory oath". Considering this in terms of taxpayer rights, in case it is proven that there is no rent received when a law suit is filed, the case is won. The Council of State has decided in one of its resolutions that "in case it is proven by the taxpayer that the reported rental income is real and true, the imputed rental value shall not be implemented and in case it is not proven, the imputed rental value shall be implemented and tax shall be paid based on this sum" (3<sup>rd</sup> Council of State, 1989/109).
- Revenue is "real". Revenue has to be acquired for taxation. A case causing taxing does not develop for non-acquired revenue. In case a person leased out his real property and does not acquired rent and in case he has proven this, it is not right to tax him based on the imputed value. Otherwise, Article 3 of Tax Procedure Law is contradicted. Taxing non-acquired income is against the principle of justice.
- Despite acquisition of income is based on the "collection" principle in real property capital incomes this principle is contradicted by the imputed rental value implementation. It is not legal taxing uncollected income. It is not right that the state levies and collects tax based on fictive income. Fictitious taxing of any taxpayer reporting real property capital income contradicts the principle of justice. The Council of State has specified in one of its resolutions that "levying shall not be based on imputed rental value without designating that rent is acquired more than the reported rent" (3<sup>rd</sup> Council of State, 1986/2209).

## 6. Conclusion and Evaluation

Checking the revenue aspect of real property capital revenues is attempted with the imputed rental value implementation. Imputed rental value principle is not a practice aiming to tax persons based on non-acquired and non-obtained incomes. It is a practice targeting to direct taxpayers to make a right report.

The conclusions drawn from the imputed rental value implementation with the supportive resolution of the Ministry of Finance and Council of State are hereunder;

- in case the persons (rent income owners) are not able prove their rent incomes,
- In case they have no proof and rental contract, the tax administration has proven that they have actually received higher rents and they have dissembled this fact,
- Failure to designate the real rent value,

They will face fined collection because they report substantially lower income than the imputed rental value or in case they file no tax return. Briefly, fined collection shall be made from taxpayers who are not able to prove that their reported tax income is real.

In case it is proven that a taxpayer filed a “complete and right” rent income or in case the reported sum is actually the acquired rent value, there is no need that they shall be subject to the imputed rent value implementation and shall be apprehended about this implementation. However, our suggestion to the persons who acquire lower than imputed rental value and report their real rent income is that they must carefully keep their documents proving their “rental value” including a rental contract showing their rental sum that they collected, receipts, vouchers, and transfer vouchers in case of disputes that can arise in the future.

In case the value actually acquired from the leased out properties and rights is proven in the imputed rental value implementation and in case it is lower than the imputed rent value, it is not right to implement it. The judicial units and administration have now this view also.

## 7. References

- 3<sup>rd</sup> Council of State, 1986/2209, [https://www.kanunum.com/\\_danistay](https://www.kanunum.com/_danistay), (25.08.2018).
- 3<sup>rd</sup> Council of State, 1989/109, <http://www.kazanci.com/kho2/ibb/giris.htm>, (25.08.2018).
- 4<sup>th</sup> Council of State, 1991/1585, <http://www.kazanci.com/kho2/ibb/giris.htm>, (25.08.2018).
- Doğrusöz B. (March 1, 2016). *Imputed Rent Value*, Dünya Gazette, <https://www.dunya.com/kose-yazisi/emsal-kira-bedeli/27326>, (24.08.2018).
- Gürboğa E. *Concerns about the imputed rent value implementation and the situation of these concerns in relation to liability record, stoppage and VAT*, <http://www.denetimkontrol.com/makaleler/38-emsal-kira-bedeli-uygulamasina-iliskin-esaslar-ile-bu-esaslarin-muekellefiyet-kaydi-stopaj-ve-kdv-karsisindaki-durumu.html>, (25.08.2018).
- Internal Circular of the Ministry of Treasury and Finance, Internal Circular of Income Tax Law, Serial No: 1999/1, Date: 05.01.1999, [www.maliye.gov.tr>genelgeler](http://www.maliye.gov.tr/genelgeler), (25.08.2018).
- Kara, M. S. (2016). *A Discrete Prospect of Imputed Rental Value Principle*, <https://vergialgi.net/vergi/emsal-kira-bedeli-esasina-farkli-bir-bakis/>, (26.08.2018).

# **Application of Multi-Criteria Decision Making Approaches for Personnel Selection in A Private Hospital**

Engin Cakir, Mehmet Can Doganer

## **1. Introduction**

Personnel selection in human resources is a critical step in helping businesses achieve their strategic goals. In order to determine the most suitable candidates for the job, appropriate selection methods must be identified and put into practice at this stage. In recent years, along with the rapid growth in the health sector, the selection of the most suitable personnel has become increasingly important. For private health care institutions, the selection of the most suitable personnel is a decision process that requires the evaluation of many criteria together. This can be regarded as a multi-criteria decision making (MCDM) problem in a sense. The aim of this study is to evaluate the patient admission personnel to be employed in private health care institutions with the integrated SWARA (Step-Wise Weight Assessment Ratio Analysis) and WASPAS (Weighted Aggregated Sum Product Assessment) methods, and to provide guidance to the sector to make appropriate decisions. For this purpose, the significance levels of the criteria to be used in evaluating the candidates for the patient admission clerk position were determined by the SWARA method at the first stage of the study. The criteria of "Computer Software Proficiency", "Physical Appearance", "Educational Background", "Residence", "Communication Skill", "Occupational Certification", "Reference" and "Sector Experience" were used in the evaluation. Determination of the significance levels of these criteria was carried out by five decision makers (four authorized personnel working in two private hospitals and an academician) in Aydin province, and the obtained data were analyzed by SWARA method and the significance levels (weights) of the criteria were determined.

The second phase of the study was carried out in a private hospital operating in Istanbul. The hospital uses kariyet.net website for all human resources needs. There was also a job posting for the patient admission clerk position and twelve applications were made to the hospital regarding this position. Five candidates meeting the requirements were called for face-to-face interviews. The hospital management was kindly requested to establish a recruitment scoring system for the recruitment of this position and the decision matrix appropriate to the MCDM methods was obtained. Based on the WASPAS analysis results of the decision matrix obtained by the scoring in the interviews, suggestions were made to hospital management for the appropriate admission personnel for the hospital.

## **2. Literature Review**

When the literature is examined, it is seen that MCDM methods are frequently used in different areas in the problem of personnel selection. Chen (2000) used the fuzzy TOPSIS method in the system engineer selection problem. Dagdeviren (2007) used the Fuzzy AHP method in the selection of candidates to be promoted. Klemenis and Askounis (2010) used the fuzzy TOPSIS-based MCDM methods in the problem of selection of personnel in information technologies. Baskaya and Ozturk (2011) implemented the evaluation of sales force candidates with the Fuzzy TOPSIS method. El-Santawy and El-Dean (2012) benefited from the VIKOR method in the selection of personnel, Rouyendegh and Erkan (2013) benefited from the fuzzy ELECTRE method in the problem of selection of academic staff. Yildiz and Deveci (2013) evaluated the personnel selection process of a technology company using the VIKOR method. Eroglu, Yildirim and Ozdemir (2014) used the ORESTE method, whereas Stanujkic, Djordjevic and Karabasevic (2015) used the SWARA and ARAS methods in the personnel selection problem. Karabasevic, Stanujkic, Urosevic and Maksimovic used the SWARA and MULTIMOORA methods in the selection of applicants for a job in a mining firm. Yildiz and Aksoy (2015) benefited from the Analytical Hierarchy Process method in the selection of personnel in the automotive

sector, and Bedir and Eren (2015) used the Analytical Hierarchy Process and PROMETHEE ranking methods in the sales consultant selection problem. Akar and Cakir (2015) used Fuzzy Analytic Hierarchy Process and MOORA methods in the selection of personnel in the logistics sector, and Akin (2016) benefited from Fuzzy TOPSIS method in selection of research assistants at a public university.

### 3. Data Set and Methods

#### 3.1. Aim of Study

The aim of this study is to determine the most appropriate patient admission personnel by evaluating the candidates to be employed in private health institutions with SWARA based WASPAS method.

When the relevant literature is examined, it is seen that selection of patient admission personnel is evaluated as a personnel selection topic within the literature. In the literature, it is seen that various MCDM methods are used for personnel selection. However, no previous study addressing the selection of patient admission personnel was found. In this respect, this study is thought to contribute to this gap in the literature.

#### 3.2. Methods of Study

Private hospitals, when choosing a patient admission clerk from among many alternatives, must consider alternatives and make a decision, taking into account certain factors and criteria. In terms of the presence of a large number of criteria, this evaluation is a MCDM problem. The most fundamental problem of the managers and the individuals is to make the right decision at the right time. Making the right decision at the right time provides significant advantages to decision-makers.

The aim of this study is to list the criteria used in the selection of patient admission personnel, to present their significance (weights) and to demonstrate that selection of patient admission personnel can be performed with MCDM methods.

In order to determine the criteria in the study, the literature has been thoroughly screened and the officials of Private Medinova Hospital operating in Aydin City Center and the Private Reference Hospital in Aydin Nazilli have reached the conclusion that the criteria in Table 1 are effective and sufficient in the selection of patient admission personnel.

**Table 1:** Evaluation Criteria of Hospital Admitting Clerk Candidate

Criteria	Criterion Explanation
<b>C1</b> Having Information on Computer Programs	<i>Proficiency of the Candidate in Using Computer Programs such as MS Office, Hospital Automation Systems, etc.</i>
<b>C2</b> Physical Appearance	<i>Characteristics of the Candidate such as Attire, Being Well-Groomed</i>
<b>C3</b> Educational Background	<i>Candidate must have at least Associate or Bachelor's degree</i>
<b>C4</b> Residence	<i>Suitability of Candidate's Residence to Job Posting</i>
<b>C5</b> Communication Skill	<i>Diction, Geniality, etc. of the Candidate</i>
<b>C6</b> Occupational Certification	<i>Certified Ownership of 'Medical Secretary Certificate' etc. by Candidate</i>
<b>C7</b> Reference	<i>Information, References to be Received from Institutions Candidate Previously Worked at or Schools Graduated from.</i>
<b>C8</b> Sector Experience	<i>Work Experience of the Candidate in the Same or Similar Position</i>

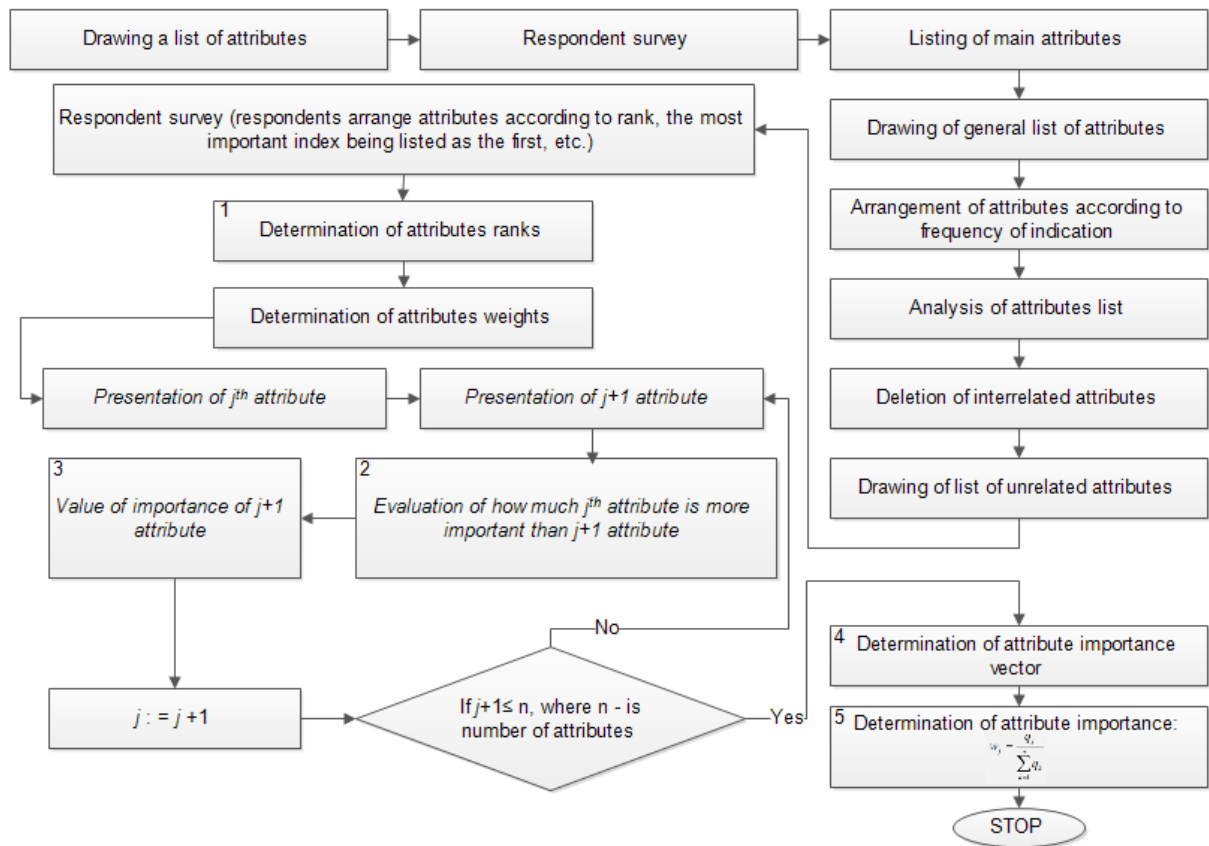
For this purpose, first of all, information was presented on the MCDM method which is used to determine the significance levels (weights) of the evaluation criteria, the SWARA method, and the WASPAS method, which is used to evaluate the alternatives.

### 3.1.1. SWARA Method

There are many methods in literature used in weight determination such as Abstract Vector method, SWARA method, Analytical Hierarchy Process (ANP), ANP, Conjoint Analysis, Entropy method (Hashemkhani Zolfani, Zavadskas, & Turskis, 2013). However, there are many reasons for choosing the SWARA method for the purpose of weight determination over other methods used in the literature. First of all, the simplicity of the SWARA method makes it easier for different experts to work for the same purpose. This situation allows researchers to save time (Hashemkhani Zolfani, Esfahani, Bitarafan, Zavadskas, & Arefi, 2013). Unlike the methods of AHP and ANP, the criteria can be graded according to the priorities of the enterprises or countries without evaluation or ranking, and the opinions of experts are taken into consideration, which makes SWARA method useful for more subjective evaluations (Hashemkhani Zolfani, Salimi, Maknoon, & Simona, 2015). At the same time, the number of comparisons made among the criteria for weighting in the SWARA method is less than the AHP method. This reduces operation cost. Compared to the conjoint analysis, it is a more comprehensive procedure for selecting the best alternative (Stanujkic, Karabasevic, & Zavadskas, 2015).

SWARA method has been chosen as the criterion weighting method in this study because it is easier to implement, has a lower transaction cost, and provides more opportunity to determine priorities for decision makers. The SWARA method, which is one of the multi-criteria decision making methods and has been used frequently in recent times, was first put forward by Keršulienė, Zavadskas and Turskis (Keršulienė, Zavadskas, & Turskis, 2010). The SWARA method gives decision makers an opportunity to choose their own priorities, taking into account the current environmental and economic situation. Moreover, the role of experts designated as decision makers is even more important in this method (Hashemkhani Zolfani & Saparauskas, 2013).

When the literature about SWARA method is examined, it can be seen that the method is used for solving many problems. These include; conflict resolution (Keršulienė et al., 2010), architect selection (Keršulienė & Turskis, 2011), product design (Hashemkhani Zolfani, Zavadskas, et al., 2013), supplier selection (Alimardani, Hashemkhani Zolfani, Aghdaie, & Tamošaitienė, 2013), selection of machine parts (Aghdaie, Hashemkhani Zolfani & Zavadskas, 2013), energy sustainability evaluation indicators (Hashemkhani Zolfani & Saparauskas, 2013), personnel selection (Hashemkhani Zolfani & Banihashemi, 2014), investment prioritization (Hashemkhani Zolfani & Saparauskas, 2013), selection of the optimal mechanical ventilation alternatives (Hashemkhani Zolfani, Esfahani, et al., 2013), supplier clustering and ranking (Aghdaie, Hashemkhani Zolfani, & Zavadskas, 2014b), sales branch selection (Aghdaie, Hashemkhani Zolfani, & Zavadskas, 2014a), selection of sites where solar power plants will be established (Vafaeipour, Hashemkhani Zolfani, Varzandeh, Derakhti, & Keshavarz, 2014), selection of R&D projects (Nezhad, Hashemkhani Zolfani, Moztafarzadeh, Zavadskas, & Bahrami, 2015), assessment of regional landslide hazards (Dehnavi, Aghdam, Pradhan, & Morshed Varzandeh, 2015), package design selection (Stanujkic et al., 2015), selection of candidates for mining engineers to be hired (Karabasevic, Stanujkic, Urosevic, & Maksimovic, 2015), hotel selection (Tus Isik & Aytac Adali, 2016), personnel selection (Karabasevic, Stanujkic, Urosevic, & Maksimovic, 2016), software selection (Cakir, 2016), ERP system selection (Shukla, Mishra, Jain, & Yadav, 2016), material selection (Yazdani, Zavadskas, Ignatius, & Abad, 2016), machine selection (Cakir, 2017a), selection of third party reverse logistics providers (Mavi, Goh, & Zarbakhshnia, 2017), assessment of cloud storage companies (Cakir & Kutlu Karabiyik, 2017), evaluation of home plan schemes (Juodagalvienė, Turskis, Šaparauskas, & Endriukaitytė, 2017), identification of customer expectations of fitness centers (Cakir, 2017b).



**Figure 1. Determination of Criteria Weights Using SWARA Method** (Keršulienė & Turskis, 2011)

In this study, the first step of SWARA method starts with the step “1 – determination of attributes ranks” in Figure 2.

**Step 1:** Criteria having no relationship with each other are ranked beginning from the most important one.

**Step 2:** Starting from the second criteria, relative significance levels are determined for each criteria. For this, the criteria  $j$  is compared with the previous criteria ( $j-1$ ). Kerseliene et al., (2010) called this ratio as “comparative significance of mean value” and indicated it with the symbol  $s_j$ .

**Step 3:** Coefficient ( $k_j$ ) is determined by using the following equation:

$$k_j = \begin{cases} 1 & j = 1 \\ s_j + 1 & j > 1 \end{cases} \quad (1)$$

**Step 4:** Recalculated weight  $q_j$ , is calculated by using the following equation:

$$q_j = \begin{cases} 1 & j = 1 \\ \frac{x_{j-1}}{k_j} & j > 1 \end{cases} \quad (2)$$

The notation  $x_{j-1}$  indicates  $q_{j-1}$ .

**Step 5:** Calculation of the weights ( $w_j$ ) belonging to criteria is performed by using the following equation:

$$w_j = \frac{q_j}{\sum q_j} \quad (3)$$

$w_j$  indicates relative significance of  $j$  criteria.

### 3.2.2. WASPAS Method

The WASPAS method, a new methodology developed with high reliability by Zavadskas et al. (2012) for the first time in 2012, is being applied to evaluate and rank potential alternatives (Hashemkhani Zolfani, Aghdaie, Derakhti, Zavadskas, & Morshed Varzandeh, 2013). Having the ability to deliver more accurate results compared to other analyses, WASPAS has been seen as an effective decision-making tool in recent years (Chakraborty, Zavadskas, & Antucheviciene, 2015). When the literature on WASPAS is examined, some of the studies encountered include: evaluation of sample alternatives (Zavadskas, Turskis, Antucheviciene, & Zakarevicius, 2012), use of WASPAS in decision phase (Chakraborty & Zavadskas, 2014), prioritization of zones in solar power projects (Vafaeipour et al., 2014), handling of interval valued intuitive fuzzy numbers (Zavadskas, Antucheviciene, Hajiagha, & Hashemi, 2014), the analysis of processing processes (Madić, Gecevska, Radovanović, & Petković, 2014), determination of outsourcing strategies (Lashgari, Antuchevičienė, Delavari, & Kheirikhah, 2014), selection of shopping center construction sites (Turskis, Zavadskas, Antucheviciene, & Kosareva, 2015), optimization of processing processes (Chakraborty, Bhattacharyya, Zavadskas, & Antucheviciene, 2015), evaluation of real-time production processes (Chakraborty, Zavadskas, et al., 2015), prioritization planning in the nano-technology industry (Nezhad et al., 2015), contractor selection (Edmundas Kazimieras Zavadskas, Turskis, & Antucheviciene, 2015), selection of the optimum indoor environment (E.K. Zavadskas, Kalibatas, & Kalibatiene, 2016), selection of industrial robots (Karande, Zavadskas, & Chakraborty, 2016), personnel selection (Karabasevic et al., 2016), evaluation of airlines (Ghorabae, Amiri, Zavadskas, Turskis, & Antucheviciene, 2017), evaluation of third party logistics providers (Ghorabae, Amiri, Zavadskas, & Antuchevičienė, 2017), selection of suppliers (Tayali, 2017), evaluation of private shopping sites (Cakir, Akel, & Doganer, 2018).

According to Chakraborty et al. (2015), the application of the WASPAS analysis requires the development of a decision/evaluation matrix first. To compare the performance measures, all items in the decision matrix are normalized using the following two equations:

$$\bar{x}_{ij} = \frac{x_{ij}}{\max_i x_{ij}} \quad \text{for beneficial criteria,} \quad (4)$$

$$\bar{x}_{ij} = \frac{\min_i x_{ij}}{x_{ij}} \quad \text{for non-beneficial criteria,} \quad (5)$$

In the WASPAS method, a simultaneous best measurement criterion is sought based on two equality criteria. The weighted average success criterion is similar to the WSM method. It is a popular and accepted MCDM method approach that is applied to evaluate alternatives. The calculation of the total relative significance of the alternatives by the weighted sum model (WSM) is made as follows:

$$Q_i^{(1)} = \sum_{j=1}^n w_j r_{ij} \quad (6)$$

The total relative significance of the alternatives according to the WPM method can be evaluated using the following equation:

$$Q_i^{(2)} = \prod_{j=1}^n r_{ij}^{w_j} \quad (7)$$

The following formula is used to determine the relative and total significance levels of the alternatives (Sengupta, Gupta, & Dutta, 2017, p. 250).

$$Q_i = \lambda Q_i^{(1)} + (1 - \lambda) Q_i^{(2)} = \lambda \sum_{j=1}^n \bar{x}_{ij} w_j + (1 - \lambda) \prod_{j=1}^n (\bar{x}_{ij})^{w_j}, \lambda = 0, 0.1, \dots, 1 \quad (8)$$



#### 4. Findings

In this study, it was aimed to evaluate patient admission clerk candidates for private hospitals operating in Aydin by SWARA based WASPAS analysis method. In the implementation of the study, criteria weights were determined by the SWARA method first and then the evaluation of the candidate patient admission clerks was performed by WASPAS analysis method.

##### 4.1. Determination of Significance Levels of Criteria Used in Evaluating Patient Admission Clerk Candidates by SWARA Method

For the evaluation of the criteria, four authorized personnel in two private hospitals in Aydin province and one academican specialized in human resources were determined as decision makers as shown in Table 2.

**Table 2:** Demographic Information of Decision Makers

Decision Makers	Gender	Institutions	Position
DM1	Male	Adnan Menderes University	Academician
DM2	Female	Aydin Private Hospital	HR Manager
DM3	Female	Nazilli Private Hospital	Head Nurse
DM4	Male	Aydin Private Hospital	Accounting Manager
DM5	Male	Nazilli Private Hospital	Hospital Manager

The first step of the SWARA method, the ranking of the criteria from the most significant to the least significant, was performed separately by each decision maker. The ranking results are shown in Table 3. According to the table, it can be seen that the most significant criterion for decision maker 1 (DM1) is "C5 - Communication skill".

**Table 3:** Criterion Rankings by Decision Makers

Decision Makers Criteria	D				
	M1	M2	M3	M4	M5
1 Having Information on Computer Programs	4	7	2	4	1
2 Physical Appearance	2	2	6	3	6
3 Educational Background	5	4	4	2	2
4 Residence	8	8	8	5	8
5 Communication Skill	1	1	1	1	4
6 Occupational Certification	7	5	5	7	3
7 Reference	6	6	7	8	7
8 Sector Experience	3	3	3	6	5

The criteria in Table 5 are listed in Table 6, with the most significant ones being the upper most criterions, and the relative significance levels ( $s_j$ ) for each criterion were determined separately by the decision makers starting from the second criterion. For example, for decision-maker 1, the relative significance level between the C5 criterion and the C2 criterion is 0.05.

**Table 4:** Comparative Significances of Criteria for Each Decision Maker

Order of Importance	of	DM1		DM2		DM3		DM4		DM5	
		R	$s_j$	Rank	$s_j$	R	$s_j$	R	$s_j$	R	$s_j$
1	5	C	/	C5	/	C	/	C	/	C	/
2	2	C	0,05	C2	0,60	C	0,15	C	0,05	C	0,10
3	8	C	0,05	C8	0,40	C	0,15	C	0,60	C	0,10
4	1	C	0,20	C3	0,05	C	0,20	C	0,05	C	0,20
5	3	C	0,25	C6	0,40	C	0,30	C	0,80	C	0,20
6	7	C	0,50	C7	0,20	C	0,10	C	0,80	C	0,15
7	6	C	0,05	C1	0,20	C	0,40	C	0,60	C	0,50
8	4	C	0,05	C4	0,10	C	0,10	C	0,50	C	0,50

The criteria weighting steps carried out by the SWARA method continue as follows;

First, with the help of Equation one and  $s_j$  values, the ( $k_j$ ) coefficients were obtained. Then, using Equation 2, the significance vector ( $q_j$ ) values of each criterion were calculated. Finally, the weights ( $w_j$ ) of the criteria were calculated by Equation 3. The criterion weights obtained as a result of the calculations made for all decision makers were presented in Table 5.

**Table 5:** Calculated Weights of Criteria for Each Decision Maker and Rankings of Criteria

Criteria	M1	M2	M3	M4	M5	Av	Ran
1 C Having Information on Computer Programs	0,141	0,061	0,182	0,150	0,198	0,146	3
2 C Physical Appearance	0,177	0,181	0,092	0,157	0,099	0,141	4
3 C Educational Background	0,113	0,123	0,132	0,252	0,180	0,160	2
4 C Residence	0,068	0,056	0,060	0,083	0,044	0,062	7
5 C Communication Skill	0,186	0,289	0,209	0,264	0,136	0,217	1
6 C Occupational Certification	0,071	0,088	0,101	0,029	0,164	0,091	6
7 C Reference	0,075	0,073	0,066	0,019	0,066	0,060	8
8 C Sector Experience	0,169	0,129	0,158	0,046	0,113	0,123	5

The arithmetic mean of the criterion weights of each decision maker was taken to obtain the final criterion weights of the criteria. According to Table 5, it was found that the most important criterion was "C5 - Communication Skill" criterion with a score of 0.217. The process to be performed after this step is the evaluation of patient admission clerk candidates with the WASPAS method, taking into account the criterion weights obtained.

#### 4.2. Evaluation of Patient Admission Clerk Candidates by WASPAS Method

This phase of the implementation was carried out in a private hospital in Istanbul titled X. The hospital where the implementation is performed carries out all kinds of personnel recruitment processes via kariyer.net web page. The requirements for the patient admission clerk position were announced on the kariyer.net page and five candidates that met these requirements applied to the hospital. Three staff members at the hospital (HR Director, Chief Physician and Deputy Director) were chosen as the decision makers for evaluating patient admission clerk candidates. Decision makers gave scores of 05-100 for candidates while taking all the criteria into consideration. The group decision matrix in Table 6 was obtained by taking the geometric averages for the scores given by each decision maker. After this stage, the evaluation process was performed with the WASPAS analysis method.

**Table 6:** Decision Matrix by Group Decision

Criteria		C1	C2	C3	C4	C5	C6	C7	C8
Attribute of		MA	MA	MA	MA	MA	MA	MA	MA
Criteria	X	X	X	X	X	X	X	X	X
Alternatives									
A1		63,2	73,0	79,8	51,2	81,4	81,4	60,0	62,1
	89	61	96	99	33	33	00	45	
A2		54,2	93,2	70,9	49,6	86,0	28,2	75,5	73,1
	88	17	73	64	65	31	95	86	
A3		83,0	75,0	78,0	67,8	73,9	28,2	71,1	71,4
	95	00	79	24	86	31	38	00	
A4		72,6	74,1	71,1	83,2	71,1	81,4	44,8	63,8
	85	69	38	03	38	33	14	25	
A5		64,6	72,6	63,8	41,3	72,6	81,4	64,1	88,4
	33	85	25	84	85	33	51	17	

All of the criteria have maximum possible cases. Looking at Table 6, we have taken the largest reference value from alternative scores for each criterion we want to maximize. Taking into account Table 6, the normalization process was performed according to Equation 4 with the principle of "the contribution of the greatest value is better" and Table 7 was obtained.

**Table 7:** Normalized Decision Matrix

Criteria		C1	C2	C3	C4	C5	C6	C7	C8
Weights of		0,14	0,14	0,16	0,06	0,21	0,09	0,06	0,12
Criteria	6	1	0	2	7	1	0	3	
Alternatives									
A1		0,76	0,78	1,00	0,61	0,94	1,00	0,79	0,70
	16	38	00	66	62	00	37	29	
A2		0,65	1,00	0,88	0,59	1,00	0,34	1,00	0,82
	33	00	83	69	00	67	00	77	
A3		1,00	0,80	0,97	0,81	0,85	0,34	0,94	0,80
	00	46	73	52	97	67	10	75	
A4		0,87	0,79	0,89	1,00	0,82	1,00	0,59	0,72
	47	57	04	00	66	00	28	19	
A5		0,77	0,77	0,79	0,49	0,84	1,00	0,84	1,00
	78	97	89	74	45	00	86	00	

Using Table 7, the  $Q^{(1)}$  values of the alternatives were calculated according to the Weighted Sum Model (WSM). For this, firstly the criterion weights obtained from the SWARA method and the value of each alternative in the normalized decision matrix were multiplied and then the additions were performed at the level of the alternatives (Equation 6). By doing so, the  $Q^{(1)}$  values shown in Table 8 were reached. The  $Q^{(2)}$  values of each alternate were calculated with the help of Equation 7 according to

the weighted product model (WPM) using the data in the normalized decision matrix in Table 7, and the calculated values were shown in Table 10. Using Equation 8 ( $\lambda$  taken as 0.5), the relative and total significance levels  $Q_i$  of the alternatives were calculated and the obtained scores were ranked (Table 10).

**Table 8:** Relative and Relevant Importance Levels of Alternatives

		$Q^{(1)}$	$Q^{(2)}$	$Q_i$	Rankings
1	A	0,8503	0,8409	0,8456	1
2	A	0,8259	0,7924	0,8091	5
3	A	0,8402	0,8137	0,8270	3
4	A	0,8391	0,8326	0,8359	2
5	A	0,8303	0,8208	0,8256	4

According to this result, the best alternative was found to be A1.

## 5. Conclusion

In today's conditions, using traditional selection methods in the recruitment process creates problems for businesses in terms of many issues. Decisions to be taken with these methods are known to cause problems such as poor performance, conflict, job dissatisfaction. For these reasons, the selection of the right personnel under highly competitive conditions is very important in terms of the strategic objectives of businesses. The recruitment process has an important place in the management of human resources as it provides competitive and cost advantages.

This study aims to fill the gap in the current literature and help determine the recruitment criteria for the position of patient admission clerk in private hospitals. The first stage of the study is to determine the significance levels of the criteria to be used for selection of the patient admission clerks. As a result of the implementation performed in Aydin province in Turkey, the most significant criterion was found to be "communication skills". Other criteria according to their significance weights were "educational background", "proficiency in computer programs", "physical appearance", "sector experience", "occupational certification", "residence", and "references". The last phase of implementation was carried out in a private hospital operating in Istanbul. 5 candidates were eligible for the job posting announced by this hospital for the patient admission personnel position, and the decision makers scored each candidate. The obtained data were analyzed by WASPAS method. According to the results obtained by the WASPAS method, the most suitable candidate for the job was determined and the results were reported to the related institution.

The small sample size and criteria pool in this study suggests that an absolute generalization would not be accurate. However, it should also be taken into consideration that the sample size cannot be very high since a sector-specific position has been selected. In addition, the personnel selection criteria discussed in this study were examined by considering the subjective evaluations of decision makers. All these can be considered as limitations of this study. Future studies can increase the number of criteria examined in this study and the results of studies on the same job position can be compared.

## 6. References

- Aghdaie, M. H., Hashemkhani Zolfani, S., & Zavadskas, E. K. (2013). Decision making in machine tool selection : an integrated approach with SWARA and COPRAS-G Methods. *Engineering Economics*, 24(1), 5–17.
- Aghdaie, M. H., Hashemkhani Zolfani, S., & Zavadskas, E. K. (2014a). Sales branches performance evaluation: a multiple attribute decision making approach. In *8th International Scientific Conference "Business and Management 2014"* (pp. 1–7). Lithuania: Vilnius Gediminas Technical University.
- Aghdaie, M. H., Hashemkhani Zolfani, S., & Zavadskas, E. K. (2014b). Synergies of data mining and

multiple attribute decision making. *Procedia - Social and Behavioral Sciences*, 110(2014), 767–776.

Akar, G.S., & Cakir, E. (2016). Lojistik sektorunde butunlestirilmis bulanik AHP MOORA yaklasimi ile personel secimi [Personnel selection in logistics sector with integrated fuzzy analytic hierarchy process - moora approach], *Yonetim ve Ekonomi Arastirmalari Dergisi [Journal of Management and Economics Research]*, 14(2), 354-371.

Akin, N.G. (2016). Personel seciminde cok kriterli karar verme: bulanik TOPSIS uygulaması [Multi-criteria approach to personnel selection: Fuzzy TOPSIS applications], *Journal of Business Research Turk*, 8(2), 224-254

Alimardani, M., Hashemkhani Zolfani, S., Aghdaie, M. H., & Tamošaitienė, J. (2013). A novel hybrid SWARA and VIKOR methodology for supplier selection in an agile environment. *Technological and Economic Development of Economy*, 19(3), 533–548.

Baskaya, Z., & Ozturk, B. (2011). Bulanik TOPSIS ile satis elemani adaylarinin degerlendirilmesi [Evaluation of Salesperson Candidate's with Fuzzy TOPSIS]. *Business and Economics Research Journal*, 2(2):77-100.

Bedir, N., & Eren, T. (2015). AHP-PROMETHEE yontemleri entegrasyonu ile personel secim problemi: perakende sektorunde bir uygulama [AHP - PROMETHEE method with integration of personnel selection problem: a case study for the retail sector]. *Social Sciences Research Journal*, 4(4), 46-58.

Cakir, E. (2016). Electronic document management system (EDMS) software selection with fuzzy COPRAS method: a municipal case. In W. Sayers & M. Avci (Eds.), *Law and Order in Turkish Society* (pp. 92–100). Berlin: AGP Research.

Cakir, E. (2017a). Kriter agirliklarinin SWARA – COPELAND yontemi ile belirlenmesi: bir uretim isletmesinde uygulama [Determining the weights of criteria with swara - copeland method: a case study on a manufacturing company]. *Adnan Menderes Universitesi, Sosyal Bilimler Enstitusu Dergisi [Adnan Menderes University Journal of Social Sciences Institute]*, 4(1), 42–56.

Cakir, E. (2017b). Weighting fitness center selection criteria using SWARA method in group decision environment. In M. Dogan & F. Morady (Eds.), *Current Debates in Tourism & Development Studies* (First, pp. 221–238). London: IJOPEC PUBLICATION.

Cakir, E., & Kutlu Karabiyik, B. (2017). Butunlesik SWARA-COPRAS yontemi lullanarak bulut depolama hizmet saglayicilarinin degerlendirilmesi [Evaluation of cloud storage service providers using integrated swara - copras method]. *Bilisim Teknolojileri Dergisi [International Journal of Informatics Technologies]*, 10(4), 417–434.

Cakir, E., Akel, G., & Doganer, M. (2018). Turkiye’de faaliyet gosteren ozel alisveris sitelerinin butunlesik SWARA - WASPAS yontemi ile degerlendirilmesi [Evaluation of private shopping sites in turkey by integrated SWARA - WASPAS method]. *Uluslararası İktisadi ve İdari İncelemeler Dergisi [International Journal of Economics and Administrative Studies]*, 2018(18. EYİ Özel Sayısı), 599–616.

Chakraborty, S., & Zavadskas, E. K. (2014). Applications of WASPAS method in manufacturing decision making. *Informatica*, 25(1), 1–20.

Chakraborty, S., Bhattacharyya, O., Zavadskas, E. K., & Antucheviciene, J. (2015). Application of WASPAS method as an optimization tool in non-traditional machining processes. *Information Technology and Control*, 44(1), 77–88.

Chakraborty, S., Zavadskas, E. K., & Antucheviciene, J. (2015). Applications of WASPAS method as a multi-criteria decision-making tool. *Economic Computation and Economic Cybernetics Studies and Research*, 49(1), 5–22.

Chen, C. T. (2000). Extensions of the TOPSIS for group decision-making under fuzzy environment. *Fuzzy Sets And Systems*, 114(1), 1-9.

Dagdeviren, M. (2007). Bulanik analitik hiyerarsi prosesi ile personel secimi ve bir uygulama [personnel selection with fuzzy analytical hierarchy process and an application]. *Gazi Universitesi Muhendislik-Mimarlik Fakultesi Dergisi [Journal of the Faculty of Engineering and Architecture of Gazi University]*, 22(4), 791-799.

Dehnavi, A., Aghdam, I. N., Pradhan, B., & Morshed Varzandeh, M. H. (2015). A new hybrid model using step-wise weight assessment ratio analysis (SWARA) technique and adaptive neuro-fuzzy

inference system (ANFIS) for regional landslide hazard assessment in Iran. *Catena*, 135(2015), 122–148.

El-Santawy, M. F. (2012). A VIKOR method for solving personnel training selection problem. *International Journal of Computing Science, ResearchPub*, 1(2), 9-12.

Eroglu, E., Yildirim, B. F., Ozdemir, M. (2014). Cok kriterli karar vermede ORESTE yontemi ve personel seciminde uygulanmasi ["ORESTE" method in multi criteria decision making and personnel selection application]. *Yonetim Dergisi [Istanbul Management Journal]*, 76, 81-95.

Ghorabae, M. K., Amiri, M., Zavadskas, E. K., & Antuchevičienė, J. (2017). Assessment of third-party logistics providers using a CRITIC–WASPAS approach with interval type-2 fuzzy sets. *Transport*, 32(1), 66–78.

Ghorabae, M. K., Amiri, M., Zavadskas, E. K., Turskis, Z., & Antucheviciene, J. (2017). A new hybrid simulation-based assignment approach for evaluating airlines with multiple service quality criteria. *Journal of Air Transport Management*, 63, 45–60.

Hashemkhani Zolfani, S., & Banihashemi, S. S. A. (2014). Personnel selection based on a novel model of game theory and MCDM approaches. In *8th International Scientific Conference "Business and Management 2014"* (pp. 191–198). Lithuania: Vilnius Gediminas Technical University.

Hashemkhani Zolfani, S., & Saparauskas, J. (2013). New application of SWARA method in prioritizing sustainability assessment indicators of energy system. *Engineering Economics*, 24(5), 408–414.

Hashemkhani Zolfani, S., Aghdaie, M. H., Derakhti, A., Zavadskas, E. K., & Morshed Varzandeh, M. H. (2013). Decision making on business issues with foresight perspective; An application of new hybrid MCDM model in shopping mall locating. *Expert Systems with Applications*, 40(17), 7111–7121.

Hashemkhani Zolfani, S., Esfahani, M. H., Bitarafan, M., Zavadskas, E. K., & Arefi, S. L. (2013). Developing A new hybrid MCDM method for selection of the optimal alternative of mechanical longitudinal ventilation of tunnel pollutants during automobile accidents. *Transport*, 28(1), 89–96.

Hashemkhani Zolfani, S., Salimi, J., Maknoon, R., & Simona, K. (2015). Technology foresight about R&D projects selection; application of SWARA method at the policy making level. *Engineering Economics*, 26(5), 571–580.

Hashemkhani Zolfani, S., Zavadskas, E. K., & Turskis, Z. (2013). Design of products with both international and local perspectives based on Yin-Yang balance theory and SWARA method. *Economic Research*, 26(2), 153–166.

Juodagalvienė, B., Turskis, Z., Šaparauskas, J., & Endriukaitytė, A. (2017). Integrated multi-criteria evaluation of house's plan shape based on the EDAS and SWARA methods. *Engineering Structures and Technologies*, 9(3), 117–125.

Karabasevic, D., Stanujkic, D., Urosevic, S., & Maksimovic, M. (2015). Selection of candidates in the mining industry based on the application of the SWARA and the MULTIMOORA methods. *Acta Montanistica Slovaca*, 20(2), 116–124.

Karabasevic, D., Stanujkic, D., Urosevic, S., & Maksimovic, M. (2016). An approach to personnel selection based on SWARA and WASPAS methods. *Journal of Economics, Management and Informatics*, 7(1), 1–11.

Karande, P., Zavadskas, E. K., & Chakraborty, S. (2016). A study on the ranking performance of some MCDM methods for industrial robot selection problems. *International Journal of Industrial Engineering Computations*, 7(3), 399–422.

Keršulienė, V., & Turskis, Z. (2011). Integrated fuzzy multiple criteria decision making model for architect selection. *Technological and Economic Development of Economy*, 17(4), 645–666.

Keršulienė, V., Zavadskas, E. K., & Turskis, Z. (2010). Selection of rational dispute resolution method by applying new step-wise weight assessment ratio analysis (SWARA). *Journal of Business Economics and Management*, 11(2), 243–258.

Klemenis, A., & Askounis, D. (2010). A new TOPSIS - based multi criteria approach to personnel selection. *Expert Systems with Applications*, 37, 4999–5008.

Lashgari, S., Antuchevičienė, J., Delavari, A., & Kheirkhah, O. (2014). Using QSPM and WASPAS methods for determining outsourcing strategies. *Journal of Business Economics & Management*, 15(4), 729–743.

Madić, M., Gecevska, V., Radovanović, M., & Petković, D. (2014). Multi-criteria economic analysis of machining processes using the waspas method. *Journal of Production Engineering*, 17(2), 79–82.

Mavi, R. K., Goh, M., & Zarbakhshnia, N. (2017). Sustainable third - party reverse logistic provider selection with fuzzy SWARA and fuzzy MOORA in plastic industry. *International Journal of Advanced Manufacturing Technology*, 91(5–8), 2401–2418.

Nezhad, M. R. G., Hashemkhani Zolfani, S., Moztaaradeh, F., Zavadskas, E. K., & Bahrami, M. (2015). Planning the priority of high tech industries based on SWARA-WASPAS methodology: The case of the nanotechnology industry in Iran. *Economic Research-Ekonomska Istrazivanja*, 28(1), 1111–1137.

Rouyendegh, B.D., & Erkan, T.E. (2013). An application of the fuzzy electre method for academic staff selection. *Human Factors and Ergonomics in Manufacturing & Service Industries*, 23(2), 107–115.

Sengupta, R. N., Gupta, A., & Dutta, J. (2017). *Decision science: theory and practice*. UK: CRC Press Taylor & Francis Group.

Shukla, S., Mishra, P. K., Jain, R., & Yadav, H. C. (2016). An integrated decision making approach for ERP system selection using SWARA and PROMETHEE method. *Int. J. of Intelligent Enterprise*, 3(2), 120–147.

Stanujkic, D., Djordjevic, B. ve Karabasevic D. (2015). Selection of candidates in the process of recruitment and selection of personnel based on the SWARA and ARAS methods. *Quaestus Multidisciplinary Research Journal*, 7, 53–64.

Stanujkic, D., Karabasevic, D., & Zavadskas, E. K. (2015). A framework for the selection of a packaging design based on the SWARA method. *Engineering Economics*, 26(2), 181–187.

Tayali, H.A. (2017). Tedarikci seciminde WASPAS yontemi [WASPAS method on supplier selection]. *Akademik Sosyal Arastirmalar Dergisi [The Journal of Academic Social Science]*, 5(47), 368–380.

Turskis, Z., Zavadskas, E. K., Antucheviciene, J., & Kosareva, N. (2015). A hybrid model based on fuzzy AHP and fuzzy WASPAS for construction site selection methodology. *International Journal of Computers Communications & Control*, 10(6), 873–888.

Tus Isik, A., & Aytac Adali, E. (2016). A new integrated decision making approach based on SWARA and OCRA methods for the hotel selection problem. *International Journal of Advanced Operations Management*, 8(2), 140–151.

Vafaeipour, M., Hashemkhani Zolfani, S., Varzandeh, M.H.M., Derakhti, A., & Keshavarz, M. E. (2014). Assessment of regions priority for implementation of solar projects in iran: new application of a hybrid multi-criteria decision making approach. *Energy Conversion and Management*, 86(2014), 653–663.

Yazdani, M., Zavadskas, E.K., Ignatius, J., & Abad, M.D. (2016). Sensitivity analysis in MADM methods: application of material selection. *Engineering Economics*, 27(4), 382–391.

Yildiz, A., & Deveci, M. (2013). Bulanik VIKOR yontemine dayali personel secim sureci [Based on fuzzy VIKOR approach to personnel selection process]. *Ege Academic Review*, 13(4).

Yildiz, M.S., & Aksoy, S. (2015). Analitik hiyerarsi prosesi ile personel secimi uzerine bir calisma [A Study on Personel Selection with Analitic Hierarchy Process]. *Abant Izzet Baysal Universitesi Sosyal Bilimler Enstitusu Dergisi [Abant Izzet Baysal University Graduate School of Social Sciences Journal of Social Sciences]*, 1(15), 59– 83.

Zavadskas, E. K., Antucheviciene, J., Hajiagha, S. H. R., & Hashemi, S. S. (2014). Extension of weighted aggregated sum product assessment with interval-valued intuitionistic fuzzy numbers (WASPAS-IVIF). *Applied Soft Computing Journal*, 24(2014), 1013–1021. <http://doi.org/10.1016/j.asoc.2014.08.031>

Zavadskas, E. K., Kalibatas, D., & Kalibatiene, D. (2016). A multi-attribute assessment using WASPAS for choosing an optimal indoor environment. *Archives of Civil and Mechanical Engineering*, 16(1), 76–85.

Zavadskas, E. K., Turskis, Z., & Antucheviciene, J. (2015). Selecting a contractor by using a novel method for multiple attribute analysis: weighted aggregated sum product assessment with grey values (WASPAS-G). *Studies in Informatics and Control*, 24(2), 141–150.

Zavadskas, E. K., Turskis, Z., Antucheviciene, J., & Zakarevicius, A. (2012). Optimization of weighted aggregated sum product assessment. *Elektronika Ir Elektrotechnika*, 122(6), 3–6.

# **The Impact of Organizational Commitment on Emotional Labor in Food and Beverage Establishment**

Irfan Yazicioglu, Ersan Erol, Gizem Sultan Sarikaya

## **1.Introduction**

The ability of businesses to sustain their assets in a competitive environment and to earn an income on the average will be possible through the development and presentation of products that satisfy the consumers who make up their target groups. The satisfied customer will be happy, as a result, happy customers will come to the position of loyal customers. For instance, service provided by friendly employees contributing positively to the assessment of service quality, will directly coincide with the interests of the business (Basım ve Begenirbaş, 2012: 80). In other words, businesses that best satisfy their customers will be successful and continue their assets. This process is more difficult in terms of service operations. Because the product presented in service businesses and closely related to employees' capabilities, attitudes and behaviors. Production and consumption in service enterprises are synchronous. Synchronicity involves an interactive interaction. In service enterprises, consumer perceptions of service can be based on the attitudes of employees to their interactions with them. Organizations want their employees to act in accordance with the image they want to create and to make efforts for it. When the literature is examined in this direction, the concept of emotional labor emerges. Emotional labor, first introduced by the American sociologist Arlie Hochschild in 1983 under the title "Managed Heart: Commercialization of Human Affects" (Hochschild, 1983: 7, Oral and Köse, 2011: 465, Kruml and Geddes, 2000: 10, Pugh, 2001: 3, Yildirim and Erul, 2013), the organization of emotions to be observed by others to meet organizational expectations, 90).

In addition to these studies, Grandey (2000) emotional regulation situation revealed. Emotional labor is defined in this study; "The regulation of emotions and the demonstration of these emotions in the direction of organizational goals".(Grandey, 2000:97; Totterdell ve Holman, 2003:56; Özgüleş, 2017:43).Ashforth and Humphrey explain that emotional labor is important in the service sector; employees' representation of the organization, the face of customer-employee relations, the uncertainty of the service process, and the abstract of the values presented to customers (Ashforth and Humphrey, 1993: 89-90, Yürür and Ünlü, 2011: 84), Employees are able to reach organizational goals by making emotional efforts to influence their customers' emotions. Therefore enterprises employees have emotional demonstration expectations. (Diefendorf ve Gosserand, 2003:945). Hochschild (1979, 1983) examined the emotional labor behavior of employees in two dimensions, surface acting and deep acting. Surface acting; to present the customers as if they feel the emotions that workers do not actually feel, different from the emotions they feel Hochschild, 1983:7; Ashforth ve Humphrey, 1993: 92;Chau, 2009:1151; Kaya ve Serçeoğlu, 2013:316; Prati vd., 2009:368).In deep acting, the individual struggles to regulate emotions and to fulfill desired role. (Hochschild, 1983:15; Köse, Oral ve Türesin, 2011:169). Although there are many definitions of the concept of emotional labor, the common point of these definitions is that the emotional situations of the employees are reflected to the customers in accordance with the aims and targets of the employees, in accordance with the message that the employer wants to give.Research for emotional labor, hows that employees affect job satisfaction, burnout and job satisfaction negatively (Acaray ve Günsel, 2017:86; Kim, 2008:159).

Employees in the service sector have internalized the goals and goals of the organization and their commitment to emotional efforts by taking responsibility for it. Organizational commitment; take responsibility for ensuring that the organization achieves its objectives by engaging with the goals and values of the organization (Buchanan, 1974: 533).Porter, Steers, and Mowday (1990) have stated that organizational commitment will be a time when individuals and organizations are identified and strive for organizational and organizational goals (Allen ve Mayer, 1990; Hartline vd., 2000:40; Sıgır, 2007:262; Özkaya, Kocakoç ve Kara, 2006:78). Organizational commitment to Meyer and Allen; the



purpose of the organization and the occupation is to form a whole and to walk in the same direction and to express the individual with the organization (Meyer ve Allen, 1991:61). The determinants of organizational commitment are factors such as identification of people with the organization, loyalty, motivation (Becker, 1992:232; Weiner, 1982:418).

Porter et al. (1974); the studies in the field of organizational commitment are classified into two categories as attitude and behavioral commitment. It is stated that the tacit commitment will occur if the individual is associated with the identity of the individual Porter vd., 1974:604; Sheldon, 1971:1499; Yazıcıoğlu ve Erol; 2016:220). According to Meyer and Allen, dimensions of organizational commitment are; There are four common points of emotional commitment, continuance commitment and normative commitment. These; they reflect a psychological condition, they show an individual-organization relationship, they are concerned with the decision to continue membership of the organization and there are the effects of decreasing labor turnover (Meyer ve Allen, 1997:12; Örüçü ve Kışlalıoğlu, 2014:47; Çekmecelioğlu, 2006:155). Affective commitment; it expresses identification with the organization by seeing the individuals as a part of the organization (Erkmen ve Bozkurt, 2011:206; Doğan ve Kılıç, 2007:41; Karcıoğlu ve Çelik, 2012:63). Continued commitment is defined as the individual's decision to stay in the organization and to abandon other values that will generate a relatively lower level of earnings (Yenihan, 2014:173; Kanter, 1968:503). Normative (normative) commitment is; the moral dimension of organizational commitment and it means believing that employees are right to feel knit loyalty (Wasti, 2002:526; Çakar ve Ceylan, 2005:56; Yücel, 2005:64).

Organizational commitment of employees is influenced by personal and organizational factors. Personal factors affecting organizational commitment; gender, age, marital status, level of education, duration of work in the organization (Cohen, 1993:145). Individuals with high organizational commitment have positive relationships with the organization in reaching their goals, and they have been continuing their membership for a long time. (Bayram, 2005:136). Lapointe et al. (2012), study of emotional attachment, emotional labor and burnout in workplaces showed that the superficial role of emotional labor is mediated significantly in relation to emotional attachment and cynicism (Lapointe vd., 2012:3). Yang and Chang (2008) investigated the relationship between emotional labor, job satisfaction and organizational commitment in clinical nurses, and found that superficial role behaviors from emotional labor subscales showed a negative relationship with organizational commitment at a significant level Yang ve Chang, 2008:879).

The main objective of the current work in the direction of the definitions and dimensions presented is; the relationship between emotional labor and associative commitment of staff working in the service sector for staff working in catering businesses.

## 2.Method

The researchers' universe constitutes occupations of 3359 restaurants with tourism certificates in Ankara. The size of the sample group was determined as 381 occupations using Yamane's formula. When the sample group is selected, easy sampling method is used. In this context 400 surveys were distributed, 391 surveys were returned. HELS (Hospitality Emotional Labor Scale) developed by Chu and Murrmann (2006) to determine emotional labor, and the scale developed by Mowday, Steers and Porter in 1979 to determine organizational commitment.

The questionnaire consists of three parts. Demographic information in the first part, emotional labor in the second part, and organizational commitment in the third part. The questionnaire was prepared according to the Likert scale of 5. Joining points 1 = I absolutely disagree; 2 = disagree; 3 = what do I agree with what do not agree; 4 = agree; 5 = definitely. The reliability coefficient "Cronbach Alpha" was used to calculate the credibility of the items. The reliability coefficient ranges from 0 to +1 (Ergin, 1995:141). and the closer it is to 1, the more reliable (Aygin ve Eti Aslan 2005:396). Reliability coefficients were found to be high in the test result.

## The Impact of Organizational Commitment

The obtained data were evaluated in statistical package program. The Kolmogorov-Smirnov Test was performed to examine whether the data were normal distributions. As a result of the test made, the data showed normal distribution. Correlation test was used in the analysis of the obtained data.

### 3. Findings

The reliability coefficients of the scales are given in the following table:

**Table 1.** Results of Scale Reliability Analysis

Emotional Labor Scale		Organizational Scale		Commitment
Items	Cronbach Alpha	Items	Cronbach Alpha	
20	0,751	15		0,743

### Participants Demographic Charecteristics

As seen in Table 2, 53.2% of the participants were women and 46.8% were women.

50.4% of the occupants are at the age of 18-23 and 42% of those at the age group are 2%. While 24% of the sample group are married, 76% are single. When you look at the educational situation; 51.4% of the graduates have a bachelor's degree while 1% of them hold masters or doctoral degrees. While 56.5% of the employees earned wages between 2000-2499 TL, they stated that 4.6% earned less than 2000 liras. 59.6% of the workers stated that they worked in 0-2 year period while 1% worked for 9 years and over.

### Relations Between Emotional Labor and Organizational Commitment

**Table2.** Emotional Labor and Organizational Commitment Correlation Analysis

		Emotional Labor	Organization al Commitment
Emotional Labor Average	Pearson Correlation	1	,503**
	Sig. (2-tailed)		,000
	N		391
Organizational Commitment Average	Pearson Correlation		1
	Sig. (2-tailed)		
	N		

The relationship between the emotional retirement of the sample group participating in the research and the level of organizational commitment was examined with Pearson Correlation. As can be seen from Table 3, a significant correlation was found at the 5% significance level ( $P < 0.05$ ). There is a meaningful relationship between emotional labor and organizational commitment in the middle, positive direction ( $r=0,503$ ;  $p=0,000<0,01$ ).

**Table 3.** Relationship between Emotional Labor and Organizational Commitment by Sex Variance

	Gender	Emotional Labor	Organizational Commitment
Emotional Labor	Female	1	,350**
	Male		,630**
Organizational Commitment	Female		1
	Male		

\*\*.  
Correlation is significant at the 0.01 level (2-tailed).  
The dimensions of emotional labor and organizational commitment are examined in relation to gender

variation. As can be seen from Table 3, there is a moderate, positive relationship between the emotional labor and organizational commitment that male workers participate in the survey ( $r=630$ ). **Table 4.** Relationship between emotional labor and organizational commitment according to marital status variable

	Marital Status	Emotional Labor	Organizational Commitment
Emotional Labor	Married	1	,634**
	Single		,470**
Organizational Commitment	Married		1
	Single		

When we look at the relationship between organizational commitment and emotional labor in terms of marital status change, there is a relationship between marital occupations at 5% significance level and emotional labor and organizational commitment in the middle, positive direction according to table 4( $r=634$ ).

**Table 5:** The Relationship Between Emotional Labor and Organizational Commitment According to the Year Variable Employed

	Worked Year	Emotional Labor	Organizational Commitment
Emotional Labor	0-2 years	1	,479**
	3-5 years	1	,473**
	6-8 years		
	9 years and over	1	,242
Organizational Commitment	0-2 years		1
	3-5 years		1
	6-8 years		
	9 years and over		1

When the relationship between emotional labor and organizational commitment was examined according to the year of employment, no significant relationship was found at 5% significance level according to Table 5.

**Table 6.** Relationship between Emotional Labor and Organizational Commitment by Educational Condition Variable

		Emotional Labor	Organizational Commitment
Emotional Labor	Primary Degree	1	,463**
	High School	1	,676**
	Associate Degree	1	,233
	University	1	,488**
	Higher Education	1	,544
Organizational Commitment	Primary Degree		1
	High School		1
	Associate Degree		1
	University		1
	Higher Education		1

## The Impact of Organizational Commitment

When the relationship between organizational commitment and emotional labor is examined in terms of educational change, no significant ( $P < 0.05$ ) relationship is found between emotional labor and organizational commitment averages at 5% significance level according to table 6.

**Table 7.** Relationship between Emotional Labor and Organizational Commitment by Income Variable

		Emotional Labor	Organizational Commitment
<b>Emotional Labor</b>	Less than 2000 TL	1	,506*
	2000-2499	1	,469**
	2500-2999	1	,739**
	3000-3499	1	,591**
	3500-+	1	,062
<b>Organizational Commitment</b>	Less than 2000		1
	2000-2499		1
	2500-2999		1
	3000-3499		1
	3500-+		1

When the relationship between organizational commitment and emotional labor is examined table 7'in terms of educational change, emotional labor and commitment averages at 5% significance level ( $P < 0,05$ ) and it has been revealed that there is a meaningful positive relationship between the individuals who earn 2500-2999 TL per month.

**Table 8.** Relationship between Emotional Labor and Organizational Commitment by Age Variable

	Age	Emotional Labor	Organizational Commitment
<b>Emotional Labor</b>	18-23	1	,378**
	24-29	1	,617**
	30-35	1	,756**
	36-41	1	,565
	42-+	1	,065
<b>Organizational Commitment</b>	18-23		1
	24-29		1
	30-35		1
	36-41		1
	42-+		1

When the relationship between organizational commitment and emotional labor is examined in terms of age variation, it is seen that there is no significant ( $P < 0.05$ ) relationship between emotional labor and commitment at the 5% significance level according to Table 8.

**Table 9.** Findings Related to Regression Analysis

<b>Değişkenler</b>	$\beta$	St. Er.	T
<b>Emotional Labor</b>	,503	,175	7,303
<b>Organizational Commitment</b>			
<b>R</b>	,503		
<b>R<sup>2</sup></b>	,254		
<b>F</b>	132,100		
<b>Durbin-Watson</b>	1,297		

According to Table 10, it is seen that organizational commitment has a significant positive effect on emotional labor. Looking at the table, it is estimated that 25% of the change in organizational commitment in the R<sup>2</sup> value result is emotional labor. The Durbin-Watson statistical value is 1,297.

#### 4. Discussion

In this study, the relationship between the levels of organizational commitment and the emotional labor they have spent on are examined. As a result of the correlation analysis, it was concluded that there is a meaningful relationship between emotional labor and organizational commitment ( $r = .503$ ) in food and beverage enterprises. Chuu and Peri-Ko (2016) found that there is a strong correlation between the two variables in the relationship between organizational commitment and emotional labor. Bayrakçı (2017) examines the interaction of emotional labor and organizational commitment on bank employees and participant at the level of continuity of participants who express more superficial behaviors, participants who score higher than emotional attachment values are more likely to express deeply and more natural behaviors. Lapointe et al. (2012), emotional attachment in workplaces, emotional labor and burnout; relationship between emotional labor, organizational commitment and cynicism has mediated significantly. (Lapointe vd., 2012:3). Yang and Chang (2008) investigated the relationship between emotional labor, job satisfaction, and organizational commitment in the context of clinical nurses. that found that superficial role-playing behavior from the subscales of emotional labor showed a negative relationship with organizational commitment at a significant level. (Yang ve Chang, 2008:879).

In this study, there is a relationship between the emotional labor that the male occupants spent in terms of gender change and the organizational affiliation in the middle and the positive direction. In terms of marital status change, there is a significant, low positive correlation between married occupations and emotional labor and organizational commitment. In terms of age change, it is shown that there is a meaningful relationship between emotional labor and organizational commitment. A significant, positive correlation was found between the emotional labor and organizational commitment of the occupations with age groups 30-35. In terms of income change, there is a significant relationship between emotional labor and attachment averages at the moderate level and a positive relationship between emotional labor and attachment averages. There was no significant relationship between emotional labor and commitment averages in terms of years of work and educational status change. In this respect, when the present studies are examined, it is concluded that the results of the study support the literature.

The high level of emotional labor emanated in food and beverage enterprises will affect the level of organizational commitment of businessmen. Workers who are positively affected by their organizational commitment will play their roles well. Naturally, the performances of those who play the role well will be high. Employees with high levels of organizational commitment will have lower turnover rates, thus ensuring continuity in the quality of service provided. Since the products served in the food and beverage business are services, satisfaction with service quality will affect customer satisfaction (Şahin ve Şen, 2017:1176; Okumuş ve Duygun, 2008:17) and will be able to maintain their business assets

## 5. References

- Acaray, A., Günsel, A. (2017). Motivasyon, Duygusal Emek, Duygusal Uyumsuzluk ve Etkileşim Yoğunluğu Arasındaki İlişkinin İncelenmesi: Bir Kamu Kurumu Çalışanları Üzerinde Araştırma. *Sosyal Bilimler Araştırma Dergisi*, 6(4), 83-98.
- Akmaz, A. (2016). *Psikolojik kontrat ile örgütsel bağlılık ve örgütsel güven ilişkisi: Mersin ilindeki 4 ve 5 yıldızlı otel işletmelerinde bir uygulama*, Yayınlanmamış Doktora Tezi, Selçuk Üniversitesi Sosyal Bilimler Enstitüsü, Konya.
- Allen, N. J. ve Meyer, J. P. (1990). The Measurement and Antecedents of Affective, Continuance and Normative Commitment to the Organization. *Journal of Occupational Psychology*, 63, 1-18
- Ashforth, , B. E. and Humphrey, R. H. (1993), Emotional labor in service roles: the influence of identity. *Academy of Management Review*, 18 (1), 88–115.
- Basım, H. N., Beğenirbaş, M. (2012). Çalışma yaşamında duygusal emek: Bir ölçek uyarlama çalışması. *Yönetim ve Ekonomi: Celal Bayar Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 19(1), 77-90.
- Bayrakçı, E. Duygusal Emek ve Örgütsel Bağlılık Etkileşimi: Banka Çalışanlarında Bir Olgubilim Araştırması. *Journal of Current Researches on Business and Economics*, 7(2), 565-590.
- Bayram, L. (2005). Yönetimde Yeni Bir Paradigma: Örgütsel Bağlılık. *Sayıştay Dergisi*, Sayı, 59.
- Becker, T. R. (1992). "Foci and Bases of Commitment: Are They Distinctions Worth Making?", *Academy of Management Journal*, 232-244, 35(1).
- Buchanan, B. (1974) Building organizational commitment: The socialization of managers in work organizations, *Administrative Science Quarterly*, 19:533-546.
- Chau, S. L., Dahling, J. J., Levy, P. E., & Diefendorff, J. M. (2009). A predictive study of emotional labor and turnover. *Journal of Organizational Behavior*, 30(8), 1151-1163.
- Chiu, S. C., & Ko, C. P. (2016). Study on Correlation Between Organizational Commitment and Emotional Labor of SPA, Proceedings of 10th IASTEM International Conference, Singapore, 23rd January 2016, ISBN: 978-93-85973-01-7
- Cohen, A. (1993). "Age and Tenure in Relation to Organizational Commitment: A Meta-Analysis", *Basic and Applied Social Psychology*, 14 (2): ss. 143-159.
- Çakar, N. D., & Ceylan, A. (2005). İş motivasyonunun çalışan bağlılığı ve işten ayrılma eğilimi üzerindeki etkileri.
- Çekmecelioglu, H. (2006). İş tatmini ve örgütsel bağlılık tutumlarının işten ayrılma niyeti ve verimlilik üzerindeki etkilerinin değerlendirilmesi: Bir Araştırma. "İş,Güç" Endüstri İlişkileri ve İnsan Kaynakları Dergisi Cilt:8 Sayı:2 ,
- Diefendorff, J.M. ve Gosserand, R.H. (2003). Understanding the emotional labor process: A control theory perspective. *Journal of Organizational Behavior*, 24(8):945-959.
- Doğan, S., Kılıç S. (2007). Örgütsel bağlılığın sağlanmasında personel güçlendirmenin yeri ve önemi. *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, (29).
- Edvardsson, B., ve Gustavsson, B. (2003). "Quality In The Work Environment: A Prerequisite For Success In New Service Development", *Managing Service Quality*, 13(2), ss. 148-163.
- Ergin, Y. D. (1995). 1. ölçeklerde geçerlik ve güvenirlik, *Marmara Üniversitesi Atatürk Eğitim Fakültesi Eğitim Bilimleri Dergisi*, 7, 125-148
- Erkmen, T., Bozkurt, S. "Örgüt Kültürü ve Örgütsel Bağlılık İlişkisinin İncelenmesine Yönelik Bir Araştırma", *Marmara Üniversitesi İ.İ.B.F. Dergisi*, (ss.197-228), 31(2), 2011, 206
- Etzioni, A. (1961). *A Comparative Analysis of Complex Organizations: On Power, Involvement, and Their Correlates*. New York: The Free Press.
- Grandey, A. A. (2000). Emotional regulation in the workplace: A new way to conceptualize emotional labor. *Journal of occupational health psychology*, 5(1), 95.
- Hochschild, A. (1983). *The Managed Heart - Commercialization of Human Feeling*. Berkeley, CA: University of California Press
- Hochschild, A., R. (1979), "Emotion Work, Feeling Rules, and Social Structure", *American Journal of Sociology*, 85(3), 551-75.

Hrebiniak, Lawrence G. ve Alutto, Joseph A. (1972), "Personal and Role-Related Factors in the Development of Organizational Commitment", *Administrative Science Quarterly*, C: 17, No: 4, s. 555-573

Kanter R. M, (1968), "Commitment and Social Organizations: A Study of Commitment Mechanisms in Utopian Communities", *American Sociological Review*, Cilt:33, (4), 499-517.

Karcioğlu, F., Çelik, Ü. H. (2012). Mobbing (yıldıрма) ve örgütsel bağlılığa etkisi. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 26(1).

Kaya, U., & Serçeoğlu, N. (2013). Duygu İşçilerinde İşe Yabancılaşma: Hizmet Sektöründe Bir Araştırma. *Calisma ve Toplum*, 36(1).

Kim, H. J. (2008). Hotel service providers' emotional labor: The antecedents and effects on burnout. *International Journal of Hospitality Management*, 27(2), 151-161.

Köse, S., Oral, L., & TÜresin, H. (2011). Duygusal emek davranışlarının işgörenlerin tükenmişlik düzeyleri ile ilişkisi üzerine sağlık sektöründe bir araştırma, *İşletme Fakültesi Dergisi*, 12(2), 165-185.

Kruml, S. M. and Geddes, D. (2000). Exploring the dimensions of emotional labor. *Management Communication Quarterly*, 14 (1), 8-49.

Kurşunoğlu, A., & Tanrıoğlu, E. B. A. (2010). İlköğretim okulu öğretmenlerinin örgütsel bağlılık düzeyleri. *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 28(28), 101-115.

Lapointe, É., Morin, A. J., Courcy, F., Boilard, A., & Payette, D. (2011). Workplace affective commitment, emotional labor and burnout: A multiple mediator model. *International Journal of Business and Management*, 7(1), 3.

Liou, K., Nyhan, R., C.(1994). "Dimensions of Organizational Commitment in the Public Sector: An Empirical Assessment". *Public Administration Quarterly*, 99-118, 18(1), 101,

Meyer, J.P. ve Allen, N.J. (1991). A Three-Component Conceptualization of Organizational Commitment, *Human Resource Management Review*, Volume 1, Issue 1, 61-89.

Meyer, J.P. ve Allen, N.J. (1997). *Commitment in the Workplace, Theory, Research and Application*. London: Sage Publications Inc.

Morris, J. A., & Feldman, D. C. (1996). The dimensions, antecedents, and consequences of emotional labor. *Academy of management review*, 21(4), 986-1010.

Okumuş, A., Duygun, A. (2008). Eğitim hizmetlerinin pazarlanmasında hizmet kalitesinin ölçümü ve algılanan hizmet kalitesi ile öğrenci memnuniyeti arasındaki ilişki.

Oral, A., G. L., Köse, S. (2011). Hekimlerin Duygusal Emek Kullanımı İle İş Doyumu ve Tükenmişlik Düzeyleri Arasındaki İlişkiler Üzerinde Bir Araştırma. *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 16(2).

Örücü, E., Kışlalıoğlu, R, S.(2014). Örgütsel bağlılık üzerine bir alan çalışması. *Uluslararası Yönetim İktisat ve İşletme Dergisi*, 10(22), 45-65.

Özgüleş, B.(2017). Algılanan Kurumsal İtibar ve İşe Bağlılığın Duygusal Emek Davranışına Etkisi: Sağlık Çalışanları Örneği, Haliç Üniversitesi Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Yayınlanmamış Doktora Tezi, İstanbul.

Özkaya, M. O., Kocakoç, İ. D., & Karaa, E. (2006). Yöneticilerin örgütsel bağlılıkları ve demografik özellikleri arasındaki ilişkileri incelemeye yönelik bir alan çalışması. *Yönetim ve Ekonomi: Celal Bayar Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 13(2), 77-96.

Porter, L.W., Steers, R.M., Mowday, R.T. ve Boulian, P.V. (1974). Organizational commitment, job satisfaction, and turnover among psychiatric technicians. *Journal of Applied Psychology*, 59, 603-609.

Prati, L. M., Liu, Y., Perrewé, P. L., & Ferris, G. R. (2009). Emotional intelligence as moderator of the surface acting—Strain relationship. *Journal of Leadership & Organizational Studies*, 15(4), 368-380.

Pugh, S. D. (2001). Service with a smile: Emotional contagion in the service encounter. *Academy of management journal*, 44(5), 1018-1027.

Samadov, S. (2006). İş Doyumu ve Örgütsel Bağlılık: Özel Sektörde Bir Uygulama, Dokuz Eylül Üniversitesi sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Yayınlanmamış Yüksek Lisans Tezi, İzmir.

Serin, M. K., Buluç, B. (2012). İlköğretim okul müdürlerinin öğretim liderliği davranışları ile öğretmenlerin örgütsel bağlılıkları arasındaki ilişki. *Kuram ve Uygulamada Eğitim Yönetimi*, 3(3), 435-459.

- Sheldon, M. E. (1971). Investments and involvements as mechanisms producing commitment to the organization. *Administrative Science Quarterly*, 143-150.
- Sığı, Ü. (2007). İş görenlerin örgütsel bağlılıklarının Meyer ve Allen tipolojisiyle analizi: Kamu ve özel sektörde karşılaştırmalı bir araştırma., *Anadolu Üniversitesi Sosyal Bilimler Dergisi*, 7(2), 261-278.
- Şahin, A., Şen, S. (2017). Hizmet Kalitesinin Müşteri Memnuniyetine Etkisi, *Journal of International Social Research*, 10(52).
- Topaloğlu, M. ve Sökmen, A. (2001), "Örgütsel Bağlılık ile İşgören Performansı İlişkisi: Ankara'da Faaliyet Gösteren Otel İşletmeleri Üzerine Bir Uygulama", *Anatolia Turizm Araştırmaları Dergisi*, Yıl:12, 153-168.
- Totterdell, P., & Holman, D. (2003). Emotion regulation in customer service roles: Testing a model of emotional labor. *Journal of occupational health psychology*, 8(1), 55.
- Wasti, S.A (2002). "Affective and Continuance Commitment to the Organization: Test of an Integrated Model in the Turkish Context", *International Journal of Intercultural Relations*, 525-550, Vol:26, , 526.
- Weiner, Y, "Commitment in Organizations: A Normative View" [Örgütlerde Bağlılık: Normatif Bakış Açısı]. *Academy of Management Review*, 7(3), 1982, 418-428
- Yang, F. H., & Chang, C. C. (2008). Emotional labour, job satisfaction and organizational commitment amongst clinical nurses: A questionnaire survey. *International Journal of Nursing Studies*, 45(6), 879-887
- Yang, Feng-Hua and Chang, Chen-Chieh, (2008). Emotional labour job satisfaction and organizational commitment amongst clinical nurses: A questionnaire survey. *International Journal of Nursing Studies*, 45, 879-887.
- Yazıcıoğlu, İ., Erol, E. (2016). The Examination of the Relationship between Employees' Empowerment Perceptions and Their Organizational Commitments in Hotel Operations, *İşletme Araştırmaları Dergisi*, 4(8), 219-229
- Yenihan, B. (2014). Örgütsel bağlılık ve iş tatmini arasındaki ilişki. *Karabük Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 4(2), 170-178.
- Yıldırım, M, H., Erul, E, E. (2013). Duygusal Emek Davranışının İşgörenlerin Tükenmişlik Düzeylerine Etkisi, *Organizasyonve Yönetim Bilimleri Dergisi*, 5(1).
- Yüceler, A. (2005). *Örgütsel bağlılık ve örgüt iklimi ilişkisi: teorik ve uygulamalı bir çalışma* (Doctoral dissertation, Selçuk Üniversitesi Sosyal Bilimleri Enstitüsü).
- Yürür, S., Ünlü, O. (2011). Duygusal Emek, Duygusal Tükenme ve İşten Ayrılma Niyeti İlişkisi.





# Impacts Of Qr Code And Rfid Technologies On E-Tourism Applications

Guntekin Simsek, Azize Rana Arkadas

## 1. Introduction

Rapidly developing technology and the digital world have become popular. In a multi-dimensional structure like tourism industry, technology should be adopted in order to accelerate the quality, speed, and ease of service. One of the most widely used technologies today is smartphones. Despite this great ease, the key disadvantage of smartphones is that virtual & physical keyboards on the smartphones are small for the manual entry and some of the keyboard's competencies are inadequate. In some applications, sensors are available where users can use interfaces. Today, Quick Response (QR) Code and Radio Frequency Identification (RFID) tags are the most popular among these applications. Quick Response (QR) Code and Radio Frequency Identification (RFID) tags are fast to read, portable and also provides comfort for industry.

The QR code, which is continuously operating in Japan market has recently entered Europe market and has begun to spread across the globe in Australia and U.S.A. With the globally increased demand for QR code, the funds spent in the RFID tag market is growing every year.

In the rapidly changing competitive environment, businesses need to renew their product, service and workflow methods. In this period, when the shift to tourism is widespread, dynamic services such as electronic services, mobile technology services or automatic reservation systems can be offered as a novelty in the service sector. These technologies are becoming increasingly widespread throughout the world and are used in many sectors, especially in the tourism sector.

## 2. Tourism and Technology

With the Industrial Revolution, the concept of "leisure time" emerged alongside the social rights and the beginning of migration from the village to the city. Along with the industrial revolution, the realization of changes in social and demographic structure in the lives of the societies has led to the emergence of contemporary tourism. Until the 1980s, 3-S (sea, sand, sun) triangle which is dominant in the tourism industry market had come forefront as mass tourism.

However, tourism is an industry which is constantly developing and changing day by day. In the TUBITAK (The Scientific and Technological Research Council of Turkey) 2023 Technology Foresight Report, 3-S (Sea-Sun-Sand) which is the dominant player in world tourism and technological developments today will be replaced by 3-E (Exciting-Educational-Entertainment). Nowadays, customers who have involved in tourism movements with different purposes have turned into tourist types who are looking for new movements, and these necessitates changes in tourism enterprises. Changes in consumer trends in accommodation and travel services within the scope of growing world tourism will lead to serious changes in tourism in the coming years.

The developments that take place in the information and technological environment affect not only the sectors of a country's economy but also the tourism industry which is the part of the service sector. In the 1960s and 1970s, computerized reservation systems (CRS) started by adopting information communication technologies. In the 1980s, airline and accommodation systems have moved to global distribution systems that offer travel agency reservations for various services. In the 1990s, with the widespread adoption of the Internet, direct access to customers such as new distribution routes and website optimizations emerged. It is seen that the tourism industry has been restructuring tourism enterprises which aim to provide superiority to the market under the global competition conditions that have been intensified in recent years, while they are benefiting from different technologies within the enterprise.

### 2.1. Concept Transformation of Tourism Into E-Tourism

Tourism products are not abstract, and they should be visited where service is provided for the consumption of tourism products. Since customers do not have the opportunity to see, inspect, or test tourism products before they buy them, they want to get detailed information and buy the best product. That's why information communication technologies have spread to a wide range of countries in the world as a powerful marketing tool in a globally competitive environment. Businesses take their power from technology by making marketing, social media and information communication technology strategies attractive while promoting to customers before service.

The marketing of tourism products on the internet used to increase the image of destination and the virtual environments provided by the chains including historical places, accommodation, and travel services are products of e-Tourism applications.

In the hospitality and travel industry, outdoor advertisements, billboard advertisements, etc. marketing investments are made every year. However, the feedback of this spent budget to the tourism industry does not satisfy the enterprises sufficiently. Today, "e" tourism has begun to become an important force in the future of the industry. The necessity to flexibility of the tourist, fast service, and low cost for the enterprises has become the reason for the transformation and spread of the concept of E-Tourism by providing quality services.

### 3. The Concept of QR Code

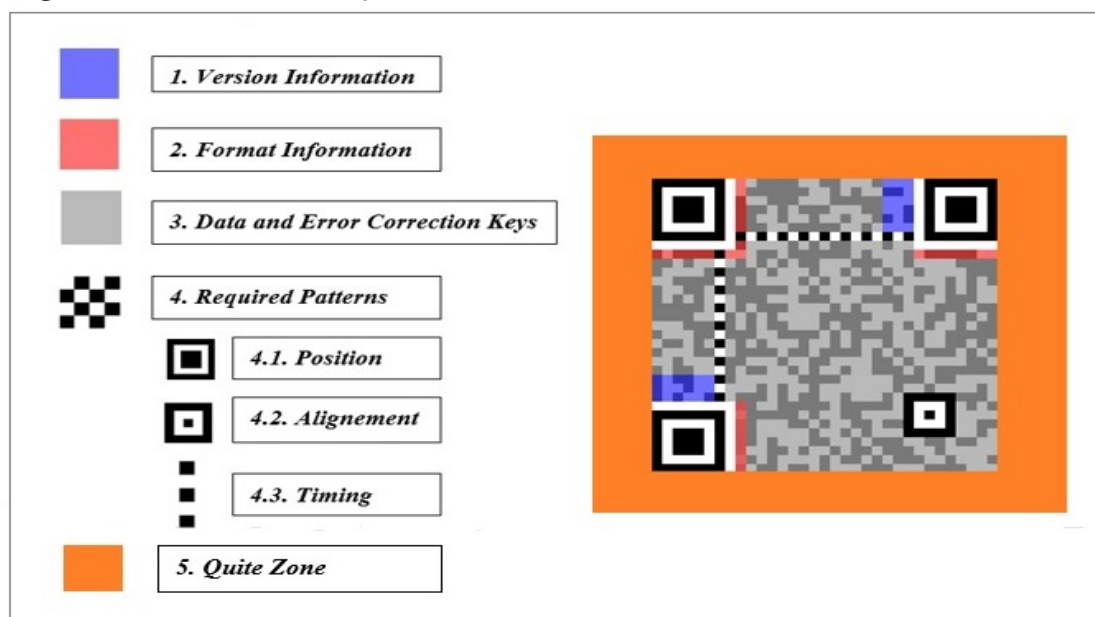
QR code entered to our life in a short time at a point where information sharing in the digital world is fast. QR code application was first unveiled in 1994 by a Japanese company named Denso Wave, a subsidiary of Toyota (Ispir, 2014, 26). Later on, QR code was approved by ISO standards in 2000. It's clear that QR Code has been admitted internationally and its widespread acceptance is not only in Japan.

The QR code takes its name from the initials "Quick Response" in English. This two-dimensional barcode system developed by the firm is composed of black spaced or tight small squares on a white background, accelerating the reading process in reaching the stored data.

#### 3.1. The Structure of QR Code

The elements in the QR code are (Mabel Vazquez-Briseno et al., 2012);

**Figure 1. The Structure of QR Code**



- **Position Pattern:** The angle and size of the QR code are in the black square on the corners to determine the position.
- **Alignment Pattern:** It is a modality used to correct QR code corruption.

- **Timing Pattern:** It is used to determine the center coordinate of each cell in the QR code.
- **Quiet Zone:** It is a field space that makes it easier to read the QR code. At least four cells are required for the stationary zone.
- **Data Area:** A field containing binary data encoded in binary numbers (for example, a URL). Includes codes of Reed-Solomon (applied error checking and correction algorithm) to provide error correction function receiving data.

### 3.2. The Usage of QR Code

The devices used differ based on their operating systems. Therefore, it is necessary to download the appropriate software and then scan the code by using the camera lens of smartphones or tablets. However, there is no need to download any software on devices which are equipped with the reader software. Bar-Code, ZXing Reader, i-Nigma, Scanlife Barcode Reader, Zapper, Quick Mark, Beetagg, and Kaywa are assumed to be widely used software today (Mabel Vazquez-Briseno et al., 2012).

When the module is scanned, it can provide direct transfer of video, audio and text as well as digital information which is stored on server or internet. It offers you the deepest stored knowledge (Ispir, 2014, 26).

### 3.3. The features of QR Code

- Apart from traditional barcodes containing data only in one direction, the QR code contains information both vertically and horizontally. Thus, it has a higher volume of information.
- While the conventional type barcodes contain 20 digits, the QR code has the maximum capacity to store 7,089 numeric data and 4,296 alpha numbers (Brown, 2007, 466)
- Among the 2D barcodes, the coded modules consisting of black squares inside the QR code are faster to solve by using QR code scanner application.
- The three large squares located at the corners of the module, which makes the position verification faster and distinguishable it from 2D barcodes.
- The QR code software can read the modules in a certain way against the damage or deterioration with the error correction feature.
- There are 40 different versions of QR code made up of small black squares. Each version contains a different number of black squares.
- The increasing number of black squares (modules) in the code means that the QR code is larger and more information can be stored.
- Mobile applications use only versions 1–10 to take into consideration smartphone's camera limitations (Kato & Tan, 2007)
- QR codes have a 360- degree angle and therefore have the ability to read modules from every direction. This is also done with the position pattern in the corner sections (Hitoshi Susono, 2006, 1006-1010).
- QR code application can easily update the information or the content stored on a web page or server. With this feature, the reader can have instant access to additional updated information. It contains the flexible update function of QR codes (Ispir, 2014, 26).

The cost of using QR code is quite cheap, and also it has unlimited content. Despite the fact that it was initially established with the aim of following automobile parts, it has been serving for various purposes in many sectors in recent years that its importance in the popular culture has increased. Furthermore, QR code is used in the health sector, medicine, and food industry.

Product catalogs, magazines, mobile marketing, business card advertising and guerrilla marketing are also widely used with QR codes. It is also seen as a creative marketing tool in-store or product promotion. It also has a wide range of airline tickets, library applications and sometimes as a tax payment instrument. Since the tourism industry is also a sustainable and innovative activity sector, the use of Qr Code is also included in this sector.

### 3.4. QR Code Applications in E-Tourism

QR code makes the learning of information fun with the curiosity awakened in people. The online experience is an interesting way to increase the quality of hospitality for individuals who like to live. QR codes can be used in target marketing campaigns. In accommodation services, it can be offered as a promotion tool for the promotion and the guests of the enterprises. Evaluating the QR code experience of the guests and the promotional campaigns that hotels can offer on social media platforms can give a different dimension to digital tourism marketing.

There are many interactions between the hotel and its guests in many ways, such as complaints in the accommodation services, payment transactions. The QR codes are integrated into the room cards and are used in the informers at the elevators, in the information desk, and in the lobby announcement panels. Also, it can be applied to give tips on where to stay, what to do, hotel events or hotel promotion. Integrating QR codes onto traditional panels, posters or hotel brochures can provide online guidance for guests by directing a classic offline content to a rich and educational online content.

In accommodation services, the guests can also use the QR codes in menus to direct the content of the menu, the calorie or the video about how the meal is made. These contents can be used especially for information and curiosity. QR codes can be placed in cups at hotel bars or on restaurant plates with promotional priority. Guests who want to buy a drink or have a sense of curiosity can go to the web address or social media page of the hotel when they scan the code. And they can participate in the community where the other guests are located and provide the opportunity to advertise the hotel. In this way, for the visitors, the attentive and valuable feeling can be created by the image of trust. As a result of hotel information, campaign or marketing costs are minimized.

As a marketing tool, the Four Seasons hotel in Boston, USA gave a card to the guests with a QR code. With this card, guests can enjoy room service, snacks, food orders, etc. (Hotel, 2018). In addition, Four Seasons has its own membership club for young people and new members can get a personalized welcome kit with QR code.

Beside the other examples, The Radisson Blu Edwardian chain has integrated QR code into restaurant menus and is directed to a special video content when guests scan the QR code. In video content, it gives advice on how the hotel chefs prepare their meals. QR codes are a powerful tool to help raise the profile of hotel restaurants and create a new business (Emek, 2012).

The QR code is used for a variety of purposes for instant interaction for all ages in visitor experiences such as obtaining in-depth information about a collection of museums and art galleries or exhibit parts, online multimedia content (Patchett & Flack, 2014). With the QR code technology that is now used in many museums and art galleries around the world, it is not only a matter of directing an article or a video; it is increasingly interactively enhancing its experience interactively.

Tourists and guests experience individual digital guidance when they read the QR code interface. In the city museums, the QR codes placed for reading alongside the works of art to provide the biographies of the artists for visitors, and also sometimes provide interactive guidance by presenting a slide show. With this type of supported video and slides, it makes your work more realistic (Emek, 2012). In addition to this, in order to get detailed information about the works of art, when the code is read, it provides an online guided tour by directing it to a voice application. This technology can greatly increase the curiosity of the visitors (Emek, 2012).

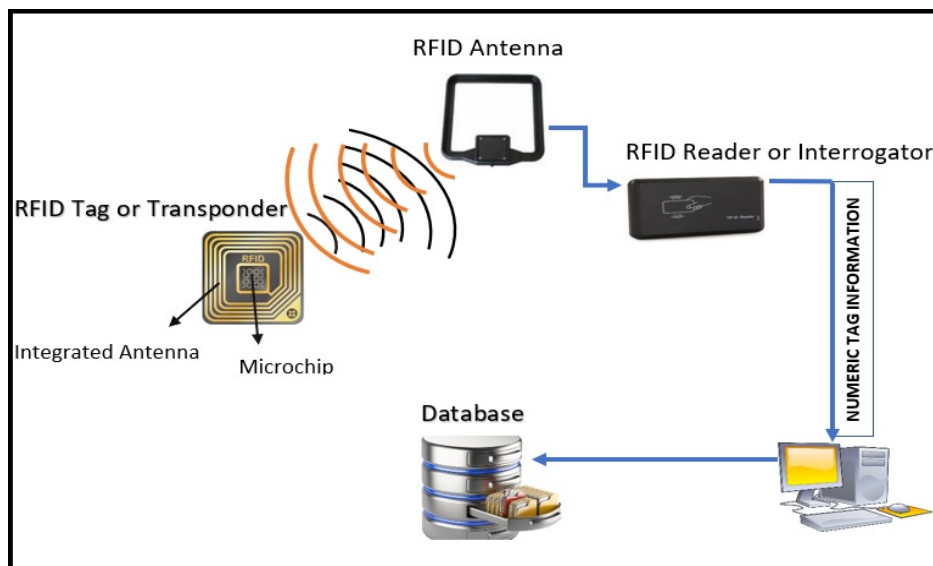
Sukiennice Museum, a very old museum in Krakow, Poland, was renovated in 2011. It has been pioneered in tourism marketing with a creative QR code campaign in order to make the exhibition more interesting to attract the attention of young people. When QR codes are scanned for the works on display, the characters in the picture are animated as a theater with 2D videos via reality application on smartphones. The museum has achieved great success with the experience that visitors experienced by interacting with the pieces in the exhibition (Hudson & Hudson, 2017).

The QR code, which serves a wide variety of purposes abroad, was created in a huge size codes for attracting tourists in China. QR code application is an exciting experience that unifies the traditional world with the digital world, aside from illuminating questions that appear in the minds of people.

### 3.5. RFID Technology

RFID (Radio Frequency Identification) provides automatic identification of objects or live assets using a tag. The working principle of this system consists of a microchip in a protective tag where information about objects or living things is stored, and a tether that surrounds this tag (Yuksel & Zaim, 2013).

Due to the connection between the rfid tag and the reader, the current flowing through the coil without contact causes the microchip in this tag to move. The reader begins to emit electromagnetic waves. The antenna takes these waves and feeds back to the reader. During this transfer, the energy that flows between them goes to the reader as data transfer. Then, the reader transfers this digital data to the computer



converting it (Ustundag, 2008).

**Figure 2. Data Architectures for RFID Transactions**

RFID tags are divided into 3 according to energy source:

**Passive (without battery) RFID tags**, longer life and cost less than other tags. The reader must be in the coverage area in order for a communication to occur between the rfid tag and the reader. In this sense, it is the passive component. It moves the chip inside the tag with the energy it gets from the reader (Marasli & Cibuk, 2015, 249-275).

**Semi-passive RFID tags**, when compared to other passive tags, it is costly but has more enhanced energy with the power it gets through a microchip. Although the microchip has the ability to move, the RFID reader can not communicate without frequency fluctuations.

**Active (battery) RFID tags**, the microprocessor has its own power supply for activating the circuits and transferring signals to the reader. It can provide data transfer and communication by creating energy with a battery synchronized to the tag. It's a costly tag type (Marasli & Cibuk, 2015, 249-275).

It is also defined as follow-up technology that enables tracking, reviewing and managing the information that the tag carries. The RFID tag is resistant to humidity and heat. On the basis of RFID, it ensures correct data transfer without any physical contact between the tag and the reader. This tag is not a single and simple technology. These communication systems generally consist of six components: Tag, Antenna, Reader, Interrogator, Controller and RFID software (Yuksel & Odabasi, 2009, 2).

RFID is often compared and similar to automatic identification systems such as barcodes. It seems to be basically the same task, but it is a quite different system. RFID can be used especially at long distances and can identify many products at the same time without requiring direct scanning (Ataman, 2013, 48-54).

Nowadays, the use of RFID tags is changing in various sectors. There is widespread use especially in logistics and transportation, animal tracking, smart card systems, library, security, health, and

medicine. The greatest convenience of this system is the supply chain management of objects or the instantaneous location of living things (Emc, 2017).

The processing speed of the RFID system, its simple use, and the inaccuracies reduce the costliest employee of correct data processing. It is foreseen that the enterprises in the tourism sector which are labor-intensive can provide a global competitive advantage.

### **3.5. Active Role of RFID Applications on E-Tourism**

The RFID system offers the convenience of Smart-check, which reduces the standby rate in the hotel sector, cruise ships, and amusement parks. Apart from that, the automatic payment systems can be used for various purposes as identification systems in libraries and security intelligence systems in museums. The disappearance of the pool towels, which is one of the frequent problems of the hotels, and the confusion of the uniform costumes of the employees, can be solved with this follow-up tagging system. In addition, the tags can be tracked so that airline companies can avoid the loss of their baggage and inventory. RFID system designs are aimed at the identification, collection, and management of dynamic data without contact of human (Hassannia, 2014).

The Starwood Preferred Guest (SPG) chain of hotels went to Smart Check-in in partnership with VingCard Elsafe. With this application launched in 2011, using RFID tagged cards, guests could settle directly in the rooms without facing the front office and waiting long in the reception area (Swedberg, 2017, 1-3). In the implementation plan of the Starwood Preferred Guest chain hotels in America, various development plans for service for the RFID system are being made. When RFID tags are placed in the guests' rooms, they will use this system without waiting for the staff to get their private room service table (Esen & Turkay, 2017). When the guest puts the service car in front of the door, staff will come in instantly with the signal given by the tag on the carpet. This will raise the quality profile of the hotel, which can be a powerful marketing tool to make guests feel special without being disturbed. Grand Hyatt San Francisco hotel has established RFID locks at the point of renewal of 659 guest rooms. These locks allow contactless guest access (Yuksel & Odabasi, 2009, 2).

In the museums, this system has become more entertaining and, at times when crowded groups have turned the chaotic environment into a form of organization. For museums and art galleries, the preservation and hiding of the exhibited items outside the visitor's satisfaction are also of great importance. RFID tags perform security applications besides these interactions. Vernon Sistem, a partner of RFID Smarttack, has provided this technology to museums and art galleries to supervise and monitor their collections. The New Zealand Otago museum is the first museum to follow the collection. The museum implemented the application in 2011. However, according to statistical data in 2015, 14,886 pieces of the collection were tagged with RFID. The movement of the parts can be monitored thanks to the fixed Smarttrack RFID readers placed at certain points of the museum (Patchett & Flack, 2014).

At the Australian Democracy Museum, the RFID identification and monitoring application, as well as thousands of students and visitors every year, this curious, smart technology is used. The RFID card reader with a different encoding is provided for each visitors, and they can select a picture to represent them on the screen during the exhibition. This manually entered data is stored in RFID TRAIL software (Hornecker & Bartie, 2006). Reader cards open the door to travel to the museum. According to the directions and questions from the screens integrated into the museum, the students live an individual experience by shifting the direction of the correct sign. This process is becoming more fun and informative to navigate on this count. This system also allows groups to direct their directions to another station without losing their position in accordance with the instructions found on the screen (Swedberg, 2017, 1-3).

Fixed readers have the ability to locate the signal they receive from the RFID tags. People can be followed in the amusement parks and cruise ships where they are crowded. In cruise ships, room cards are given to passengers as they are in the hotel industry. This card is slightly different from hotel cards. They show SeaPass cards that contain information on how to deposit money on their room cards and to get them back on board. Royal Caribbean's named cruise ships used the Wowband RFID based bracelets as a contactless lock system. It is therefore thought to have created a major innovation by

removing the problem of disappearance and storage of classic SeaPass cards. The wrist strap is powered by a rechargeable battery and is charged at the end of seven days of travel. In addition, these wristbands have the ability to monitor the location and easily access the service on board so that the guest can easily pay for the spending he has made (Kugler, 2011).

At Walt Disney World Resort, small waterproof bands with RFID integrated MagicBands double-frequency bracelets give guests an experience that allows them to enter contactless into hotel rooms. Guests can also receive RFID card events, as well as bracelets created from the web-based MyDisneyExperience website. Guests have a permit to enter the park and can shop at points of sale. This is a magical experience for them.

#### 4. Conclusion

New applications are being added to these applications which have been in continuous development since the last years. It offers cost and labor savings, as well as the ability to update online data and renewal opportunities. The ability to respond instantly to guests' requests in the hospitality and travel industry and their practical use also provide a competitive edge over other businesses in the sector. Thus, these activities also create benefit information access for the guests. In addition, with the creation of loyalty to the customer, it contributes to convenience, low cost, profit increase in the enterprise.

RFID and QR code applications offer different advantages in many places and attractions of the tourism sector. The broader the creativity, the more limitless the type of marketing that can be done with these two applications. QR codes are an exciting experience that combines the traditional world with the digital world, aside from illuminating questions that appear in people's minds. The concept of tourism has always been active in every field and every time. The application scope of these technologies in destinations and sectors contributes to making difference in global competitive environment in tourism marketing. In fact, although they are similar in terms of cost, labor saving, and data collection features, they also vary considerably in terms of intended use.

#### 5. References

- Ataman, H. (2013). RFID Etiket Nedir [What is RFID Tag]?, *Pack Converting*, 67(1), 48-54. Retrieved on January 10, 2018, from [https://issuu.com/asdambalajsanayi/docs/pack\\_converting\\_67](https://issuu.com/asdambalajsanayi/docs/pack_converting_67).
- Brown, D. (2007). *RFID Implementation*. McGraw Hill Professional. 466.
- Emc, M. (2017). RFID Teknolojisi Kullanarak Kampus Harcama Sistemlerinin Tasarlanması ve Uygulanması: Üniversite Orneği. *Yönetim Bilisim Sistemleri Dergisi [Journal of Management Information Systems]*, 2(1).
- Emek, M. (2012). Usage of QR code in tourism industry. 6th World Conference for Graduate Research in Tourism. *Hospitality and Leisure*, 24- 29 April 2012, Fethiye, Turkey
- Esen, F., Turkyay, B. (2017). Big Data Applications in Tourism. *Journal of Tourism and Gastronomy Studies*, 5(4), 92-115. DOI: 10.21325/jotags.2017.140
- Hassannia, R. (2014). *The Multipurpose Application of Radio Frequency: Identification (RFID) in the Tourism Industry: On A Requirement Analysis for Employing RFID Technology in the Hotel Sector* (Unpublished master thesis). Eastern Mediterranean University, Gazimagusa, North Cyprus.
- Hornecker, E., Bartie, P. (2006). Technology in Tourism: Handheld Guide Systems and Museum Technologies. *ResearchGate*, Retrieved on January 10, 2018, from <https://www.researchgate.net/publication/266883481>.
- Hotel, F., S. (2018). *Concierge Recommends: Boston*. Retrieved on January 10, 2018, from [www.fourseasons.com/boston/destination/things-to-do/](http://www.fourseasons.com/boston/destination/things-to-do/).
- Hudson, S., Hudson L. (2017). *Marketing for Tourism, Hospitality & Events: A Global & Digital Approach*. London: Sage Publications Ltd.
- Ispir, B. (2014). Etkilesimli Ortam Yönlendirmeleri ile Dijital İsbirliğinin Sağlanması: Dergilerde QR kod kullanımı. *Anadolu Üniversitesi Sosyal Bilimler Dergisi [Anadolu University, The Journal of Social Science]*, 14 (4), 26. Doi: 10.18037/ausbd.65459



- Kato, H., Tan, K.T. (2007). Pervasive 2D Barcodes for Camera Phone Applications. *IEEE Pervasive Computing*, 6 (4), 77. DOI: 10.1109/MPRV.2007.80
- Kugler, L. (2011). Hotel Employs RFID to Woo Guests. *RFID Journal*, 2011/05/23, 1-4. Retrieved on January 10, 2018, from <https://www.rfidjournal.com/articles/view?8427>.
- Mabel Vazquez-Briseno, F., I., Hirata, Juan de Dios Sanchez-Lopez, E., J., Christian N., Juan I., N. (2012). Using RFID/NFC and QR-Code in Mobile Phones to Link the Physical and the Digital World. In Ioannis Deliyannis (Ed.). *Interactive Multimedia*, ISBN: 978-953-51-0224- 3.
- Marasli, F., Cibuk, M. (2015). RFID Teknolojisi ve Kullanım Alanları [RFID Technology and Application Areas]. *BEU Fen Bilimleri Dergisi [BEU Journal of Science]*, 4 (2), 249-275.
- Patchett, M., Flack, A. (2014). RFID In Museum And Galleries: A Review. *React*.
- Susono, H., Shimomura, T. (2006). Using Mobile Phones and QR Codes for Formative Class Assessment. *Formatex*, 1006-1010.
- Swedberg, C. (2017). Australian Museum Exhibit Features Democracy's History Via RFID. *RFID Journal*, 2017/09/05, 1-2. Retrieved on January 10, 2018, from <https://www.rfidjournal.com/articles/view?16502>.
- Ustundag, A., Tanyas, M. (2009). Radyo Frekanslı Tanim (RFID) Teknolojisinin Tedarik Zinciri Uzerindeki Etkileri [Impacts of Radio Frequency Identification (RFID) Technology on Supply Chain]. *ITU Dergisi [Istanbul Technical University Journal]*, 8 (4), 83-94.
- Yuksel, M. E., Zaim, A. H. (2009). *Otomatik Nesne Tanımlama, Takibi ve Yönetiminde RFID'nin Yeni Nesil Kablosuz İletişim Teknolojileri ile Birlikte Kullanımı*. Paper presented in XI. Akademik Bilisim Conference, Harran University, Sanliurfa, Turkey.
- Yuksel, M., E., Odabasi, S., D. (2009). Nesneler İzlenebilir ve Yönetilebilir Mi? Çözüm: RFID [Can Objects Be Tracked and Managed? Solution: RFID]. Paper presented at XI. Akademik Bilisim Conference, Harran University, Sanliurfa, Turkey.

# **Study of Relationship Between Five Factor Personality Theory and Career Decisions: A Research on Gökçeada Vocational School Students**

Erkan Bil, Tanju Guduk, Gulay Keski

## **1. Introduction**

Career decision is one of the most important decisions that an individual could make during his life, and making the career selection consciously is highly important for both the individual and the future of the country. Because, with the decisions he makes, an individual will also be choosing a process in which he will shape all of his life, as well as the environment he will live in and the people he will engage in relationship (Pekkaya and Çolak, 2013: 799).

Human power is one of the important resources for the development of a country. Ability to use human power in an effective and efficient manner will be dependent on placing the individuals on occupational areas that are suitable for their interests and capabilities. It is important for an individual to make a correct decision in relation to selection of profession. Because if the selection of profession, which is considered as a way of self-expression for an individual, takes places towards satisfying the needs, interests and desires in the best manner, the individual will be able to realize himself and create a healthy perception of personality. Thus, the individual will meet his psychological requirements and be mentally healthy and happy (Yılmaz, 2017: 225). For that reason, one of the most important stages of university students in their career developments is the process of transition to business life and in general this process is very hard for university students (Kapısuzoğlu et al., 2017: 130). Factors such as the educational life and business life being different, lacking the experience and skills required, and the students having unrealistic expectations in relation to work life, make this process very difficult (Wendlandt and Rochlen, 2008: 6).

Career decision constitutes one of the most important decisions that a young individual needs to make in his life and involves a complex decision making process that is affected from various factors (Çınar, 2013: 2). In reality, various external factors have a role in determining the career decision. These are such factors as age, sex, family, reference group, pre-school and school period education, needs, interests and system of values that the person has, concept of personality, characteristics of the environment in which the person lives, the existing business areas and employment conditions in the economy, and the condition of supply and demand in the market (Anılan et al., 2008: 239). Besides, studies in the literature demonstrate that the existing knowledge accumulation of a young individual, the interest he has towards his potential occupation, values that he has and the satisfaction he will experience will have an impact on the career decision, and in addition to that the personal characteristics are an important factor in determining the career decisions (Genç et al., 2007: 50).

## **2. Five Factor Personality Theory**

According to a general definition, personality is a consistent and structured form of relationship which an individual establishes with internal and external environment and is differentiating from other individuals (Cüceloğlu, 1991: 404). Personality is explained as the structures which demonstrate who the individuals are pointing out the psychological characteristics as the emotional, behavioral and cognitive forms that appear over time come together (Basim et al., 2009: 22). Personality represents the characteristics of a person that make him different from others. In addition to this, special characteristics or whole of characteristics which distinguish a person from others could only be understood by means of examining the individual differences (İnanç and Yerlikaya: 2016: 3). Personal characteristics that a person has affect the individual attitudes and behaviors of individuals. Personality has a significant impact on individual's perception of the work he performs and his environment, and on his evaluation of the work. When the work performed by an individual complies with his personal characteristics and capacities, his work satisfaction will take place. During the time

in which the individual harmonizes his own personal characteristics with his capacities, he will have satisfaction and increased productivity (Köroğlu, 2014: 141).

Various theories have been developed in order to explain what personality is. The most important of these theories that are developed towards understanding and examining the personality is the Five Factor Personality Theory (Deniz and Erciş, 2010: 42). Five Factor Personality Theory, which as developed by Paul Costa and Robert McCrae in 1985, is a theory that includes all personal characteristics of a person and explains all these characteristics with a broad scope. At this point, Five Factor Personality Theory is defined as studying and classifying all universal personality characteristics in five basic dimensions based on observation (McCrae and Costa, 2006: 227).

According to five factor theory, people have characteristics which affect their emotions, thoughts and behavioral patterns (Çivitçi and Arıcıoğlu, 2012: 82). These characteristics are classified in five basic dimensions (extraversion, agreeableness, emotional stability, conscientiousness, openness), and this is an evaluation model which defines personality in the widest sense (Goldberg, 1992: 26) To briefly describe five factor personality characteristics:

Extraversion defines the individuals who are generally very social, love to be with people, who are eager and action oriented. In general, those who have this personality characteristics have tendency towards training, are assertedly active and talkative (Ehrler and Evans, 1999: 452). Agreeableness persons demonstrate more frequent and intense personal interactions and requirement to act at more levels, and they generally prefer to re-assess the problems from positive direction by being optimistic (Bitlisli et al., 2013: 462).

Emotional Stability (Emotional Imbalance) means the anxiety, anger, boredom, acting without thinking, insecurity and depression experiences by an individual. Persons who have symptoms of neurotic tendency suffer from one or more of various psycho-somatic symptoms such as chronic fatigue, head ache, insomnia, visual problems, lack of appetite etc. These people express their emotional conflicts generally through physical means (Tatlilioğlu, 2014: 945).

Openness, this is the characteristic that has the highest cognitive aspect among five factor personality structure. In this regard, individuals who are open to progress at a high level are those who imagine much, are adventurer, original, creative, curios, directed towards his own opinions and emotions; and those who are at low level are traditional, conservative and uninterested (Merdan, 2013: 143).

Agreeableness means the inter-personal aspects of personality. Among the characteristics of this dimension are thinking others before himself, being tolerant in inter-personal relations, being sympathetic, warm blooded, polite and respectful. Individuals who have these characteristics have the tendency to be cooperative and loved by others (Bitlisli, 2013: 143).

Conscientiousness; means the individuals' ability to be planned, careful and also the self-control degree demonstrated. Individuals having self-control are those people who have control on their stimulus, who are hardworking, keen on their works, organized and hardworking towards reaching their targets (Horzum, 2017: 400). It is demonstrated that individuals with high self-control experience better friendship relations and that these people, due to their success-oriented structures, avoid the approaches of solution that could prevent them from reaching their purposes, and that they prefer reconciliation approaches less (Basım et al., 2009: 23).

### 3. Career Decision

Career is a concept related to progress of a person on any field of work during his working life and his acquirement of experiences and skills; and covers the positions which the individual occupies in his work life as well as his attitudes and behaviors related to these positions and the works done by him (Sağdıç and Demirkaya, 2009: 234). Career is the embodiment of knowledge accumulation and skills in the work, the individual working in that position becoming expert of the work, and the work experiences acquired and business relations developed over time (Redman and Wilkinson, 2001: 268). Based on these definitions, career decision, which is defined as the process in which the individuals identify themselves, the existing job opportunities and professions and evaluate these from their various aspects and make decisions accordingly, is described as the act of individuals to determine

different professions suitable for them and evaluate these according to their various aspects appropriate for them (promotion, management, salary, reputation, status) and to select the most prevailing one (Gökdeniz and Merdan, 2011: 26).

Career decision making behavior plays an important role in assisting the individuals for making correct choices for their future career developments (Ye et al., 2018: 472). From the point of view of career decision, in particular the university years constitute a critical period in which the young people make important decisions in relation to their future careers. The fact that decisions made in relation to career in this period affect the professional future of young people, as well as their psychological and physical well-being, their social acceptance and therefore the general life quality, makes these decisions difficult and complex (Kavas, 2012: 160).

It could be seen that individuals who have selected careers suitable for themselves perform their works by love in the society, and they sustain a life full of enjoyment, happiness and productivity as they progress such in their profession. As opposed to this, it could be seen that individuals who do not make career selection in an appropriate way without matching their interests are unwilling towards working, have low productivity, resist against innovations and are always in an effort to change their professions (Sarıkaya and Khorshid, 2009: 395).

#### 4. Method

This study aims at examining the relationship between Five Factor Personality Theory (extraversion, agreeableness, emotional stability, conscientiousness, openness) and the career decision (making conscious decisions, making unconscious decisions, environmental factors).

In the study, the students of Gökceada Vocational School were identified as the universe. Due to the geographical conditions of the island, the number of active students is 325 and the survey was applied to 267 students, however, 229 students were reached due to certain restrictions.

Survey method was used in the research. The survey comprises three sections prepared using the demographical characteristics, Five Factor Personality Theory Scale developed by Goldberg (1992), and career decision scale in the thesis study of Yusupu (2015). Likert scale of 5 was used in the survey form and the statements were evaluated as such : 5. Totally Agree, 4. Agree, 3. Neither Agree Nor Disagree 2. Disagree 1. Totally Disagree

##### 4.1. Data Analysis

Convenience sampling method is used in the survey and the data obtained as a result of the study was evaluated using SPSS 23.0 package program. In the study, Five Major Personality Theory Dimensions and Career Decision Dimensions Explanatory Factor Analysis Results, demographical characteristics of students, T-test results by sex, ANOVA test towards determining whether the career decisions of students change according to the household income status, were used and Correlation Analysis was carried out towards determining the relationship between Five Factor Personality Theory and Career Decision. Findings obtained as a result of this analysis are evaluated below.

Expressions in the Five Factor Personality Theory, which was used within the scope of the research, were subjected to factor analysis and articles which meet structural validity as the result of analysis were included in the final scale. Following the factor analysis applied, it was checked whether there is any repeating expression which constitutes single dimension, factor load of which is less than 0.50 and which demonstrates overlapping.

**Table 1 – Results of Explanatory Factor Analysis of Five Factor Personality Theory Dimensions**

o	N	Factor Components					Variance Explanation Rate (%)
		<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	<i>Factor 4</i>	<i>Factor 5</i>	
O1	C	,774					12,298
O2	C	,736					
O3	C	,734					
O4	C	,732					
O5	C	,721					
O6	C	,702					
O7	C	,674					
O8	C	,580					
G1	A		,768				11,101
G2	A		,737				
G3	A		,718				
G4	A		,710				
G5	A		,643				
G6	A		,634				
G7	A		,611				
G8	A		,496				
P1	O			,785			10,361
P2	O			,757			
P3	O			,681			
P4	O			,645			
P5	O			,642			
P6	O			,582			

## Study of Relationship Between Five Factor Personality Theory and Career Decisions

E M1				,7 34		9, 859
E M2				,7 16		
E M3				,7 03		
E M4				,6 44		
E M5				,5 83		
E M6				,5 59		
E M7				,5 49		
E M8				,5 06		
E X1					,7 26	8,125
E X2					,6 75	
E X3					,6 48	
E X4					,6 25	
E X5					,5 19	
E X6					,4 18	
KMO=,780; Bartlett Test for Sphericity =3757,830; Sig=,000; df=630						

Expressions in the Five Factor Personality Theory, which was used within the scope of the research, were subjected to factor analysis and articles which meet structural validity as the result of analysis were included in the final scale. Following the factor analysis applied, it was checked whether there is any repeating expression which constitutes single dimension, factor load of which is less than 0,50 and which demonstrates overlapping.

It was decided that the result of the factor analysis could be interpreted taking into account the results of KMO and Bartlett Test. The KMO value of the scale was found to be 780, and the result of Bartlett Test for Sphericity was found to be 13757,830. KMO values provide information on whether factor analysis is good or not. The more KMO criteria is close to 1, the more appropriate the data is for the factor analysis. For KMO values; the classification made is as follows: “0,90=perfect”, “0,80=very good”, “0,70=good”, “0,60=middle”, “0,50=weak” and “below 0,50 =unacceptable” (Kalaycı, 2006: 322).

Table 2 demonstrates the reliability analysis results of factors obtained as a result of the analysis. The total contribution of the 5 factors determined to the variance is % 51,744.

**Table 2 – Results of Reliability Analysis Following Factor Analysis**

Scales	Factors	Cronbach ( $\alpha$ ) coefficients	Alpha.
<b>Five Factor Personality Theory</b>	Factor 1	12,298	51,744
	Factor 2	11,011	
	Factor 3	10,361	
	Factor 4	9,859	
	Factor 5	8,125	

Expressions in the Career Decision scale, which was used within the scope of the research, were subjected to factor analysis and articles which meet structural validity as the result of analysis were included in the final scale. Following the factor analysis applied, it was checked whether there is any repeating expression which constitutes single dimension, factor load of which is less than 0,50 and which demonstrates overlapping.

**Table 3 – Results of Explanatory Factor Analysis for Career Decision Dimensions**

No	Factor Components			Variance Explanation Rate (%)
	<i>Factor 1</i>	<i>Factor 2</i>	<i>Factor 3</i>	
CO N1	,7 48			26, 211
CO N2	,7 42			
CO N3	,7 36			
CO N4	,7 26			
CO N5	,6 83			
CO N6	,6 74			
CO N7	,6 29			
CON8	,6 19			
CO N9	,6 07			
CO N10	,6 01			
CO N11	,5 93			
CO N12	,5 21			
UN C1		, 690		16,344
UN C2		, 685		
UN C2		, 631		
UN C3		, 616		

It was decided that the result of the factor analysis could be interpreted taking into account the results of KMO and Bartlett Test. The KMO value of the scale was found to be 856, and the result of Bartlett Test for Sphericity test was found to be 16640,205.

**Table 4 – Results of Reliability Analysis Following Factor Analysis**

The table demonstrating the demographic characteristics of 229 samples who attended the survey using statistical data analysis is given below.

**Table 5 – Findings of Research Related to Demographic Characteristics of Students Attending the Study**

SEX		AGE	
Male	100	18 - 24	91,7
Female	29	25 - 31	6
		32 - 38	,6
		39 - 45	,9
<b>Total</b>	<b>129</b>	<b>Total</b>	<b>100,0</b>



<b>CIVIL STATUS</b>		%	<b>EDUCATIONAL STATUS</b>		%
Single	23	7,4	1st Grade	01	4,1
Married	6	2,6	2nd Grade	18	5,9
<b>Total</b>	<b>29</b>	<b>100,0</b>	<b>Total</b>	<b>29</b>	<b>100,0</b>
<b>MOTHER'S EDUCATIONAL STATUS</b>		%	<b>FATHER's EDUCATIONAL STATUS</b>		%
Illiterate	0	,4	Illiterate	34	,6
Elementary / Secondary	76	6,9	Elementary / Secondary	6	8,5
High School	3	3,1	High School	7	4,5
Associate degree	0	,2	Associate degree	7	,4
Undergraduate or Graduate degree	8	,5	Undergraduate or Graduate degree	6	,7
<b>Total</b>	<b>29</b>	<b>100,0</b>	<b>Total</b>	<b>29</b>	<b>100,0</b>
<b>PLACE LIVED DURING UPBRINGING AGE</b>		%	<b>INCOME STATUS OF THE HOUSEHOLD</b>		%
Village	1	,2	1500 TL and below	3	,7
Town/ Sub-District	4	,1	1501 TL - 2500 TL	2	1,4
District	5	,2	2501 TL - 3500 TL	7	4,9
Province/Big City	2	2,7	3501 TL - 4500 TL	4	4,8
<b>Total</b>	<b>14</b>	<b>9,8</b>	<b>Total</b>	<b>3</b>	<b>3,1</b>
<b>29</b>	<b>100,0</b>		<b>29</b>	<b>100,0</b>	

Since the impact on Five Factor Personality Theory and Career Decision factor components according to sex from among the independent variables indicated in the demographic characteristics, has been examined at a significance level of  $p < 0,05$  with T-test of differences between two parametric independent groups as normal distribution assumption is assumed (homogeneity of variance is tested).

**Table 6 – Five Factor Personality Theory According to Sex – T-test Results**

DEPENDENT VARIABLE	INDEPENDENT VARIABLE	N	Average	P-value Sig. (2-tailed)
<b>Factor 1 Extraversion</b>	<b>Sex</b>	<b>229</b>		
	<i>Female</i>	129	3,7003	,012
	<i>Male</i>	100	3,4367	,012
<b>Factor 2 Agreeableness</b>	<i>Female</i>	129	4,2548	,017
	<i>Male</i>	100	4,0338	,021
<b>Factor 3 Conscientiousness</b>	<i>Female</i>	129	2,4264	,000
	<i>Male</i>	100	2,9725	,000
<b>Factor 4 Emotional Stability</b>	<i>Female</i>	129	3,8605	,156
	<i>Male</i>	100	3,7088	,156
<b>Factor 5 Openness</b>	<i>Female</i>	129	3,8346	,564
	<i>Male</i>	100	3,8917	,562

According to the results of T-test, since Extraversion, Agreeableness, Conscientiousness and Emotional Stability from among Five Factor Theory characteristics are below  $p < 0,05$ , there is not statistically significant difference between males and females having this characteristics. However not statistically significant difference was observed between men and women having Emotional Stability and Openness characteristics.

**Table 7 – Career Decision T-test Results According to Sex**

DEPENDENT VARIABLE	INDEPENDENT VARIABLE	N	Average	P-value Sig. (2-tailed)
<b>Factor 1 Making Conscious Decision</b>	<b>Sex</b>	<b>229</b>		
	<i>Female</i>	129	4,0646	,230
	<i>Male</i>	100	3,9475	,237
<b>Factor 2 Making Unconscious Decision</b>	<i>Female</i>	129	2,8282	,162
	<i>Male</i>	100	3,0000	,161
<b>Factor 3 Environmental Impacts</b>	<i>Female</i>	129	2,1848	,000
	<i>Male</i>	100	2,6167	,000

According to T-test results, since the difference between Making Conscious Decisions and Making Unconscious Decision from among the Career Decision factors, is higher than  $p > 0,05$ , it was concluded that there was a statistically significant difference according to sexes however there was no statistically significant difference between men and women in terms of Environmental Impacts from Career Decision factors.

Whether the household income status of participants has any impact on Career Decision factor components was studied at ( $p < 0,05$ ) significance level with ANOVA test which is the unidirectional variance analysis between groups for variables for which normal distribution assumption is ensured.

**Table 8 – Career Decision ANOVA test results According to Household Revenue Status**

DEPENDENT VARIABLE	F-value	P-value Sig.
<b>Factor 1 Making Conscious Decision</b>	1,832	,124
<b>Factor 2 Making Unconscious Decision</b>	1,636	,166
<b>Factor 3 Environmental Impacts</b>	2,356	,055

According to Anova test results, it was concluded that there is no statistically significant difference according to sex since the relationship between Making Conscious Decision, Making Unconscious Decision and Environmental Factors, which are among Career Decision factors, according to household income status.

**Table 9 - Results of Correlation Analysis Towards Relationship Between Five Factor Personality Theory and Career Decision**

		<b>Making Conscious Decision Average</b>	<b>Making Unconscious Decision Average</b>	<b>Environmental Impacts Average</b>
<b>Extraversion Average</b>	Pearson Correlation	<b>,291<sup>**</sup></b>	<b>-,194<sup>**</sup></b>	-,128
	Sig.. (2- tailed)	,000	,003	,053
	N	229	229	229
<b>Agreeableness Average</b>	Pearson Correlation	<b>,351<sup>**</sup></b>	,069	-,128
	Sig.. (2- tailed)	,000	,298	,054
	N	229	229	229
<b>Conscientiousness Average</b>	Pearson Correlation	,072	<b>-,233<sup>**</sup></b>	-,117
	Sig.. (2- tailed)	,276	,000	,078
	N	229	229	229
<b>Emotional Stability Average</b>	Pearson Correlation	<b>,320<sup>**</sup></b>	<b>-,234<sup>**</sup></b>	<b>-,214<sup>**</sup></b>
	Sig.. (2- tailed)	,000	,000	,001
	N	229	229	229
<b>Openness Average</b>	Pearson Correlation	<b>,511<sup>**</sup></b>	<b>-,172<sup>**</sup></b>	-,010
	Sig.. (2- tailed)	,000	,009	,882
	N	229	229	229

According to correlation analysis results, it was observed that there was a positive relationship between Extraversion and Making Conscious Decision, and a negative relationship with Making

Unconscious Decision, which are among Five Factor Personality Theory characteristics, that there was a negative relationship between Conscientiousness and Unconscious Decision, a positive relationship between Emotional Stability and Making Conscious Decision, a negative relationship between Emotional Stability and Making Unconscious Decision and Environmental Factors, a positive relationship between Being Openness and Making Conscious Decision, and a negative relationship between Openness and Making Unconscious Decision Making.

## 5. Conclusion and Recommendations

Although various external factors have a role in determining the career of a person (impact of the family, employer preference etc.), the person is first expected to make his own preference with some evaluation factors. These factors are shaped according to personal characteristics of the person in particular. The person is being affected from the personality characteristics explained in Five Factor Personality Theory while making decisions.

In the study it was particularly observed that people who are open to development are more keen towards making conscious decisions. People who are open for development are smart, thoughtful, curios, who want to learn everything, who have broad interests, strong imaginative power, who are innovative and intellectual, who think analytical, are independent and are open minded (Bono et al, 2002: 320).

As a conclusion, in particular the characteristics of the individual to be open for development affects his career decision and was an important factor in making conscious decisions. Individuals who have personality characteristics of being open for development are those who have high level of conscientiousness and who could make projections. Individuals who have these characteristics make healthier decisions both in their social lives and in their private lives. Individuals who are open for development make more accurate career decision choices which are suitable for themselves, in which they can continuously develop themselves and they can enjoy.

In other studies, the relationship between the career decision of students and five factor personality theory and with the creativity of students could be researched.

## 6. Resources

Anılan, H., Çemrek, F. ve Anagün, Ş.S. (2008).“Ortaöğretim Öğrencilerinin Meslek Seçimi ve Üniversite Tercihlerine İlişkin Görüşleri (Eskişehir örneği)”, e-Journal of New World Sciences Academy, 3(2),38-249.

Basım, H. N., Çetin, F., Tabak, A. (2009). “Beş Faktör Kişilik Özelliklerinin Kişilerarası Çatışma Çözme Yaklaşımlarıyla İlişkisi”, Türk Psikoloji Dergisi, 24(63),20-34.

Bitlisli, F., Dinç, M., Çetinceli, E., Kaygısız, Ü. (2013). “Beş Faktör Kişilik Özellikleri ile Akademik Güdülenme İlişkisi: Süleyman Demirel Üniversitesi Isparta Meslek Yüksekokulu Öğrencilerine Yönelik Bir Araştırma”, Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 18( 2), 459-480.

Büyükgöze, Kavas, A. (2012). “Kariyer Karar Ölçeği’nin Türkçe Uyarlaması: Geçerlik ve Güvenirlik Çalışması”, Türk Psikolojik Danışma ve Rehberlik Dergisi, 4(38),159-168.

Bono, J.E., Boles, T.L., Judge, T.A. and Lauver, K.J. (2002) “The Role of Personality in Task and Relationship Conflict”, Journal of Personality, 70(3), 1311-1344.

Cüceloğlu, D. (1991), “İnsan ve Davranışı, Remzi Kitabevi, 2. Basım, İstanbul.

Çınar, Y. (2013). “Kariyer Tercihi Probleminin Yapısal bir Modeli ve Riske Karşı Tutumlar: Olasılıklı Dematel Yöntemi emelli Bütünleşik bir Yaklaşım”, Sosyoekonomi Dergisi,1.,159-185.

Çivitçi, N. Ve Arıcıoğlu, A. (2012). “Beş Faktör Kuramına Dayalı Kişilik Özellikleri”, Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi,23, 78 -96.

Deniz, A. ve Erciş, A. (2010), “Kişilik Özellikleri, Hedonik ve Rasyonel Fayda, Marka Duygusu ve Marka Bağlılığı Arasındaki İlişkilerin Belirlenmesine Yönelik Bir Araştırma”, Atatürk Üniversitesi İktisadi ve İdari Bilimler Dergisi, 24 (2), 141-166.

Ehrler, D. J., Evan, G. (1999), "Extending Big-Five Theory Into Childhood: A Preliminary Investigation Into the Relationship Between Big Five Personality Traits and Behavior Problems in Children", *Psychology in the Schools*, Cilt: 36, Sayı: 6, ss: 451-458.

Genç, G., Kaya, A. ve Genç, M. (2007). "İnönü Üniversitesi Tıp Fakültesi Öğrencilerinin Meslek Seçimini Etkileyen Faktörler", *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 8 (14), 49-63.

Goldberg, Lewis R.; (1992). "The Development of Markers for the Big-Five Factor Structure". *Psychological Assessment*, 4(1), 26-42.

Gökdeniz, İ., Merdan, E. (2011). "Kişilik ile Kariyer Seçimi Arasındaki İlişkinin İncelenmesi Kişilik ile Kariyer Seçimi Arasındaki İlişkinin İncelenmesi", *Aksaray Üniversitesi İİBF Dergisi*, 3(2), 23-35.

Horzum, M. B., Ayas, T., Padır, M, A. (2017). Beş Faktör Kişilik Ölçeğinin Türk Kültürüne Uyarlanması Adaptation of Big Five Personality Traits Scale to Turkish Culture", *Sakarya University Journal of Education*, 7(2), 388-408.

İnanç, Y., B., Yerlikaya, E., E. (2016), "Kişilik Kuramları", *Pagem Akedemi*, 12. Baskı, Ankara.

Kalaycı, Ş. (2006). "Faktör Analizi", *SPSS Uygulamalı Çok Değişkenli İstatistik Teknikleri*, Ed.: Şeref Kalaycı. İkinci Basım. Ankara: Asil Yayın.

Kapusızoğlu, M.; Şengün, H. & Boz, Çelebi, F. (2017). "İktisadi ve İdari Bilimler Fakültesi Öğrencilerinin Kariyer Kararı Yetkinlik Beklentileri: Bayburt Üniversitesi Örneği", *International Journal of Academic Value Studies*, 3(14), 129-143.

Köroğlu, Ö. (2014). "Meslek Seçimiyle Kişilik Özellikleri Arasındaki İlişkinin Belirlenmesi: Turizm Rehberliği Öğrencileri Üzerine Bir Araştırma", *Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 19(2), 137-157.

Merdan, E. (2013). "Beş Faktör Kişilik Kuramı ile İş Değerleri İlişkisinin İncelenmesi: Bankacılık Sektöründe Bir Araştırma", *Gümüşhane Üniversitesi Sosyal Bilimler Elektronik Dergisi*, 7, 140-159.

Mccrae, Robert R. ve Paul T. Costa. (2006). "A Five-Factor Theory Perspective on Traits and Culture". *Psychologie Française*, 51, 227-244.

Polach, J. L. (2004). "Understanding The Experience Of College Graduates During Their First Year Of Employment", *Human Resource Development Quarterly*, 15, (1), 5- 23.

Redman, T. ve Wilkinson, A. (2001). "Contemporary Human Resources Management". *Financial Times Prentice Hall*, New York.

Sağdıç, M. ve Demirkaya, H. (2009). "Üniversite Öğrencilerinin Kariyer Gelişim Planlarına İlişkin Yaklaşımları", *Sosyal Bilimler Enstitüsü Dergisi*, 1(26), 233-246.

Tatlıholu, K. (2014). "Üniversite Öğrencilerinin Beş Faktör Kişilik Kuramı'na Göre Kişilik Özellikleri Alt Boyutlarının Bazı Değişkenlere Göre İncelenmesi", *Tarih Okulu Dergisi*, 7(17), 939-971.

Ye, L., Liu, L., Li, H., Hu, T., Wen, Y., Hou, Z. (2018). "Nationality Differences in the Relationship Between Career Decision-Making Profiles and Career Decision-Making Profiles and Career Self-Efficacy", *Social Behavior and Personality*, 46 (3), 471-484.

Yılmaz, Nalbantoğlu, F. (2017). "Lise Öğrencilerinin Meslek Seçimlerini Etkileyen Faktörlerin İkili Karşılaştırmalar Yöntemiyle İncelenmesi" *Eğitimde ve Psikolojide Ölçme ve Değerlendirme Dergisi*, 8(2), 224-236.

Yusupu, R. (2015). "Üniversite Öğrencilerinin Kariyer Kararları ile Mükemmelliyetçilik, Öğrenme Motivasyonu ve Akademik Başarı Arasındaki İlişkiler", *Dokuz Eylül Üniversitesi Eğitim Bilimleri Anabilim Dalı, Rehberlik ve Psikolojik Danışmanlık Programı Yüksek Lisans Tezi*, İzmir.

# Risk Factors And Strategy Development In Fresh Fish Cold Chain Logistics

Huseyin senkayas, Okan Ertosluk

## 1. Fresh Fish Cold Chain

Accordance to the change of living conditions and increase in the per capita income, frozen food consumption increases day by day. Delivery of perishable food from harvest to consumer preserving freshness made cold chain logistics more vital. In order to cope with the loss and the risk factors in seafood arising in the transportation, storage, processing, packaging and selling stages, firms need to develop new strategies. Especially, heat control and traceability are the featured characteristics in digitalized chain. This study aims to put forth the risk factors considering stages in the seafood cold chain and to develop strategies in order to minimize these risks.

As developed economies improve consumer awareness, demand for more quality, secure and healthy food increases. Risk level that customers tolerate when buying food is gradually falling. On the other hand, security of food products is a subject that needs attention by businesses and especially food supply chains. Because, the apprehension of disrupted food in society and emergence of diseases can be threatening for public health and firm's image. (Şenkayas 2016).

As a result of LQ (Location Quotient) analysis of industrial employment data, 20 sectors stand out in TR32 region in Turkey. It is found that Fishery and Aquaculture sector is the most localized sector in TR32 region in 2009 and 2014. (Şenkayas et al., 2016) Therefore, cold chain of seafood industry is vital for coastal cities of Turkey. Fishermen, firms and logistics players want to deliver fresh fish to customers during secure and fast cold chains.

Food loss in the globe is a vital problem as it reaches 1.3 billion tons per year. This is about one third of annual food production. In developed countries 40% of this loss comes up after the harvest. When considered all the loss through the supply chains in Europe, 280-300 kg of loss per capita is seen. (da Silva, 2014) So we need to minimize this loss in food supply chains by means of cold chains. Also food supply chains should be shorter for food security and loss. There are four steps in the supply chain that food loss occurs:

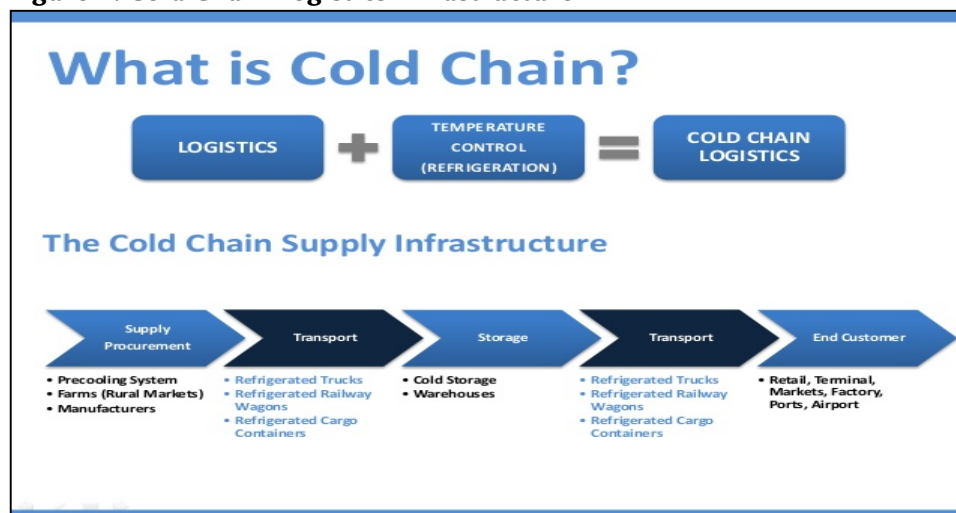
- a) Loss in harvest and storage
- b) Loss in carrying and warehousing
- c) Loss in retailers
- d) Loss in consumers' use

Cold chain is a set of refrigeration steps that maintain the quality and safety of food product. But using electricity for refrigeration contributes to ozone depletion and global warming. Cold chain firms should use energy efficient and eco friendly alternatives. (Hoang et al., 2016)

Logistics is the management of the flow of goods from production point to meet customer requirements in the right time in the right place. Cold chain logistics is a temperature control (refrigerated) logistics activities of especially food and beverage, bio-pharmaceutical and chemical substances. It has a similar infrastructure as common logistics shown in Figure 1. In European and American developed countries, the rate of refrigerated transport is 80-90%, pre-cooling preservation is up to 80-100%, and the loss rate is below 5%. Nearly 25% of the total food production is processed food. (Sapra, 2011)

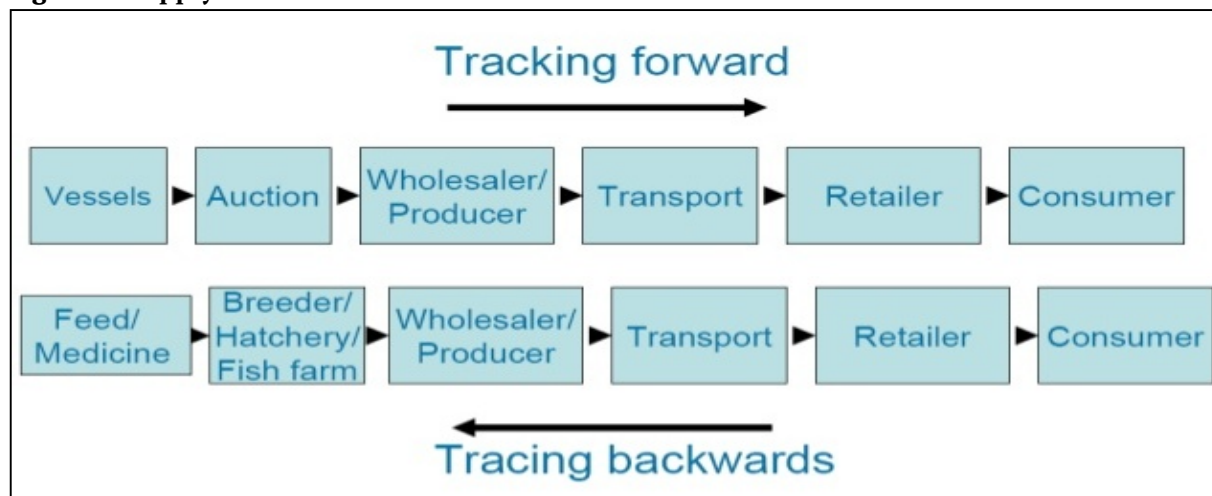
Cold chain logistics infrastructure can be classified in five steps:

1. Supply and procurement (pre cooling after harvest)
2. Transport (refrigerated trucks, wagons and containers)
3. Storage (cold storage and warehouses)
4. Delivery transport
5. End customer (retailers, markets, factories, ports)

**Figure 1: Cold Chain Logistics Infrastructure**

Source: Sapra, R. & Joshi, S. (2011). *Cold Chain Logistics: Sector Analysis*, Welinkar Institute of Management, <https://www.slideshare.net/businessdesign2011/cold-chain-logistics>

The total amount of seafood consumed is growing, so government officials and industry leaders concerned with ensuring food safety and quality, are exploring means to provide more information and control on sourcing, processing and distribution of food products within supply chains and ultimately to the consumers. (Abad, et al., 2009)

**Figure 2: Supply Chains for Fish**

Source: Bostock, J., *The development and implementation of European regulations for (fish and shellfish) traceability*, Institute of Aquaculture, University of Stirling, UK, 2015.

## 2. Risk Factors of Fresh Fish Supply Chains

As global markets change rapidly, food firms need to develop proactive and predictive risk management for their supply chains. They have to manage and mitigate the individual and potential risks. Supply chain risks outcome from environmental, organizational or network-related factors. Risk management strategies include corporate image, liability, employee health and safety, cost reduction, regulatory compliance, community and customer relations, and product improvement. (Enyinda et al., 2013)

Ways of mitigating supply chain risks and uncertainties can be grouped as follows: (Şenkayas, 2016)

1. Traceability of goods in the supply chain
2. Relevance to standards, law and regulations
3. Vertical integration of chain members
4. Food distribution planning

Traceability of food safety is an important era for countries. The EU Regulation 178/2002 describes traceability as “the ability to trace and follow a food, feed, food-producing animal or substance intended to be, or expected to be incorporated into a food or feed, through all stages of production, processing and distribution”. Nowadays the available tools are, mainly, alphanumerical codes, bar code labels and Radio Frequency IDentification (RFID) tags. The simplest RFID system is a product identification tool that uses a wireless microchip and an antenna in the tag that does not need physical contact or sight positioning (like barcodes) with the reader. It is a useful technology for fresh perishable products. There is also a major requirement for precise temperature monitoring along the complete logistic chain in order to ensure food safety. (Abad, et al., 2009)

Enyinda et al. put forth that policy and institutional risk is the most important risk in food supply chain that decision makers must manage. They also find that the most preferred risk management option for policy and institutional, political, and logistical and infrastructure is risk reduction/mitigation. (Enyinda et al., 2013)

In seafood industry, there are so many risks of deterioration for products caused by high temperature and microbial reasons, so people must consume them quickly because of shorter shelf life. In order to increase the shelf life of seafood, precautions should begin just after getting fish from the water. Way to bring fresh fish to the customer is to raise awareness of the fishermen, processor, manager, carrier, salesman and consumer and also to create a system for traceability through the cold supply chain.

To maintain quality and freshness of perishable foods like fish we should apply cold chains at country level. Therefore fishermen must lower the temperature to 0°C and slow down the enzymatic and microbial deterioration after the haunting. Additionally, it is important how they pack the fish in ice, how much time fish stay in that pre-cooling stage and how quickly the fish will be refrigerated. During unrefrigerated transport the continuous temperature of the seafood must be -1°C. Pre-cooled fish should be put into boxes with 0.8 kg ice per 1 kg fish. The vehicles transporting that icy seafood also need to be refrigerated. (Kundakçı, 2009)

Risk factors of transporting seafood can be classified as follows:

1. Risk of warming (high temperature)
2. Microbial deterioration
3. Change in color and smell
4. Physical appearance deterioration
5. Oxidative sting (softening)

In Turkey, 75% of seafood is consumed fresh, 4% is assessed in fish flour and fish oil factories and 10% is used in seafood processing and evaluation facilities. Seafood is the most valuable nutrient with high protein content, almost all amino acids, rich vitamins and high biological value. On the other hand, it is the fastest food in spoilage and putrefaction (Emir et al, 2012; Öztürk, 2015)

### **3. Strategy Development in Fresh Fish Cold Chain Logistics**

Delivery of perishable food from harvest to consumer preserving freshness made cold chain logistics more vital. In order to cope with the loss and the risk factors in seafood arising in the transportation, storage, processing, packaging and selling stages, firms need to develop new strategies. Especially, heat control and traceability are the featured characteristics in digitalized chain. This study aims to put forth the risk factors considering stages in the seafood cold chain and to develop strategies in order to minimize these risks. For this purpose we analyze two fishery firms' cold chains and their risk factors.



Agromey Fishery is a firm in seafood industry that has an integrated chain of fish meal production, fish breeding, fish processing and packaging plant. The firm has a continuous development process with quality certificates of Global G.A.P, IFS, BRC, FDA, ISO 9001 and ISO 22000. It has fish farms in Karaburun and Milas, fish meal factory in Torbalı, and fish processing & packaging plants in Aydın and Karaburun. Agromey is the supplier of a lot of market chains and one of the biggest exporters with 15000 tons of sea bass.

Agromey has two fish farms in Karaburun and Milas breeding mainly sea bass (*Dicentrarchus labrax*) and sea bream (*Sparus aurata*) that put up for sale fresh and processed in domestic and foreign markets.

**Figure 3: Agromey Fishery**



Kılıç Fishery is a firm in seafood industry that has fish farms of sea bass (*Dicentrarchus labrax*) and sea bream (*Sparus aurata*) in Bafa, Ören, Akarca and Güvercinlik. It has hatchery and fish breeding cages that breeding fish in the same height.

Kılıç has a breeding capacity of 45 tons of fish. Fish are vaccinated when they are 30-50 gr and then put into HDPE cages of 30-50 m diameters. Enlargement plants are off-shore systems with automatic feeding systems and have technological underwater and over water cameras. The sea bass fish reaches a portion of paint in 16-22 months and sea breams reaches in 13-14 months and they are sent to packaging plant to be served to markets.

Interviews and correspondence were held with two fishery firms according to predetermined criteria. Table 1 shows the cold chains, risk factors and strategies of the firms comparatively due to their answers to our questions.

**Table 1: Comparative strategies of Agromey and Kiliç Fishery firms**

Criteria	AGROMEY	KILIÇ
Cold Chain	Harvest, refrigerated transport, fish extraction, classification, packaging, storage, customer supply	Harvest, fish tanks, transport, processing, pre-cooling, longitude, refrigeration, freezing, consignment, retailing
Temperature	To the end customer 0-4°C After packaging 0-2°C In the factory 8-10°C	Fresh fish 0-2°C Frozen product max -18°C In the factory min 10°C
Technologies	Refrigerated vehicles Cold storages	Refrigeration technologies Recognition systems with lot no Satellite device tracking system Temperature control with data logger
Products and sales	Fresh sea bass and sea beam Frozen and fletto (from 400 g to 17 kg) Packed delivery to fish halter Export to EU, USA and far east	Sea bass, sea bream, tunny 45000 tons process capacity 40000 tons of sales 27000 tons export
Risk factors	Softening in fish meat Change in color Heavy smell Fade in gills Increased mucus secretion in the body	Eye mist The body turns into an internal bend Meat structure softens Odor gets heavy Microbial deterioration is seen
Cost and productivity	Electricity cost Loss in freshness and quality Quality and freshness by cold chain management	Fish meat is scattered and loss rate increase Controlled vehicle stop-and-go times Minimize loss by inventory control Temperature increase is prevented, shelf life is increased
Packing and storage	Transport in isolated livers Cooling in styrofoam boxes for 2-4 hours after processing and then packaging	Food suitability certificate for packaging Migration analyses Tracking materials
Shelf life	10-12 days after harvest	14 days for fresh fish 18 months at -18°C
Wastes	Sent to fish meal firms to produce fish oil and fish flavor	Fish meal raw material
Training	Always on-the-job trainig	Employees have one month orientation on-the-job training
Strategies	Icing and pre-cooling Shocking at harvest (ice, electricity) Refrigerated transport	Shelf life increase by cold chain Refrigerated trucks Inventory control and traceability Employee training

#### 4. Conclusion

Cold chain logistics are vital because of increasing fresh and frozen fish consumption. Therefore, firms should develop new strategies in order to cope with the loss and the risk factors in seafood arising in the transportation, storage, processing, packaging and selling stages.

First of all it is important to apply pre-cooling to new hunted fish. All of the personnel from fisherman to salesman should get training about cold chain logistics activities. Training can be as a process of orientation program and also a sustainable practice in the firm. Temperature regulations are important in all stages of the chain. From harvest to retailers seafood must be kept at a certain temperature in storage and also during transportation. Every stage of the supply chain must be traceable, so digitalization is a vital application in cold chains.

Fishery firms should have a risk management system that determines risk factors and apply measures for the risk potentials. Risk strategies are vital for delivering seafood to consumers rather fresh. Firms can adopt international standards and quality certifications to guarantee safe seafood delivery. These strategies also include evaluation of fish wastes as fish meal, fish flour or fish oil.

## 5. References

- Abad, E., Palacio, F., Nuin, M., González de Zárate, A., Juarros, A., Gómez, J.M., Marco, S. (2009). *RFID smart tag for traceability and cold chain monitoring of foods: Demonstration in an intercontinental fresh fish logistic chain*, Journal of Food Engineering 93, 394–399.
- Al-Busaidi, M.A., Jukes, D.J., Bose, S., (2016). *Seafood safety and quality: An analysis of the supply chain in the Sultanate of Oman*, Food Control, Volume 59, January 2016, Pages 651–662.
- Beretta, C., Stoessel, F., Baier, U., Hellweg, S., (2013). *Quantifying food losses and the potential for reduction in Switzerland*. Waste Management, 33 (2013) 764–773.
- BIM (Bord Iascaigh Mhara / Irish Sea Fisheries Board) Guidance Not for Retailers, *Cold Chain Management for Seafood*,
- Bostock, J., *The development and implementation of European regulations for (fish and shellfish) traceability*, Institute of Aquaculture, University of Stirling, UK, 2015.
- Emir, M., Karadağ, H.O., Ege, F., Ceyhan, V. (2012). *Türkiye’de Balık Unu ve Yağı Üretimi ve Ticareti: Mevcut Durum, Sorunlar ve Çözüm Önerileri (Fish Flour and Fish Oil Production in Turkey: Current State, Problems and Solution Suggestions)*, 10. Ulusal Tarım Ekonomisi Kongresi, 5-7 Eylül 2012, Konya.
- Enyinda, C.I.; Anaza, N.A.; Hamouri, S. (2013). *Model for Risk Management in Food Logistics and Supply Chain*, Society for Marketing Advances Proceedings; Nov 2013, Vol. 25, p276.
- FAO, [www.fao.org/.../user.../fisheries/.../VALUE\\_CHAIN-report1...](http://www.fao.org/.../user.../fisheries/.../VALUE_CHAIN-report1...)
- Hoang, H.M., Brown, T., Indergard, E., Leducq, D., Alvarez, G., (2016). *Life cycle assessment of salmon cold chains: comparison between chilling and superchilling technologies*. Journal of Cleaner Production, Volume 126, 10 July 2016, Pages 363–372.
- JosÉ Graziano da Silva (2014). *Gıda Ziyanı ve Açlık Sorunu (Food Loss and Hunger Problem)*, <http://www.milliyet.com.tr/yazarlar/dusunenlerin-dusuncesi/gida-ziyani--ve-aclik-sorunu-1858357/>
- Kundakçı, A. & Ergönül, B., (2009). *Su Ürünlerinde Soğuk Zincir Etkinliğinin Önemi ve Ürün Kalitesi ile Olan İlişkisi (The Importance of Cold Chain on Fishery products and its interaction on product quality)*, Electronic Journal of Food Technologies, Vol. 4, Issue 1, 21–28.
- Lailossa, G.W. (2015). *The new paradigm of cold chain management systems and its logistics on Tuna fishery sector in Indonesia*. Aquaculture, Aquarium, Conservation & Legislation International Journal of the Bioflux Society, Volume 8, Issue 3, 381–389.
- Ötleş, S. & Özyurt, V.H. (2016). *Endüstri 4.0: Gıda Perspektifi*, Dünya Gıda Dergisi, Mayıs 2016.
- Öztürk, E. (2015) *Su Ürünleri İşleme Teknolojisi (Seafood Processing Technology)*, <https://www.foodelphi.com/su-urunleri-isleme-teknolojisi-ogr-gor-ekrem-ozturk/>.
- Sapra, R. & Joshi, S. (2011). *Cold Cain Logistics: Sector Analysis*, Welingkar Institute of Management, <https://www.slideshare.net/businessdesign2011/cold-chain-logistics>.
- Sariözkan (2016). *Türkiye’de Balıkçılık Sektörü ve Ekonomisi (Fishery Sector and Economy in Turkey)*, Turkish Journal of Aquatic Sciences, 31(1): 15–22.
- Şenkayas, H. (2016). *Gıda Tedarik Zincirinde Risk Yönetimi (Risk Management in Food Supply Chain)*, Satınalma Dergisi. 27 Ekim 2016.
- Şenkayas, H., Çamlıca, Z., Akar, G.S. (2016). *TR32 Bölgesinde Endüstri 4.0 için Uygun Olabilecek Sektörlerin Araştırılması (Investigation of Sectors that may be Suitable for Industry 4.0 in TR32 Region )*,

ÜAS 2016, Uluslararası Katılımlı 16. Üretim Araştırmaları Sempozyumu, İTÜ İşletme Fakültesi, Ekim 2016.

Zhou, J. & Sun, J. (2015). *Strategy Research on Perfecting the Cold Chain Logistics System of Fresh Food*. Int. Conf. On Technological Management and Humanities Science, ETMHS.



# Risk Management In Dangerous Substances Transportation On Railway

Huseyin Senkayas, Emre Danisman, Sukru Uzundag

## 1. Logistics of Dangerous Substances

Risks for people in the area of shipment, loading and unloading of dangerous goods are also valid for people living on the route where the shipment is located. With the developing technology, millions of factory materials are shipped from suppliers in different parts of the world, the same way products made in factories are shipped to customers in various parts of the world. In this process, because of the risks, dangerous substance logistics emerges as a problem area.

Efficient and safe transportation between production places to the delivery point to customers provides customer satisfaction and minimum logistics cost.

The basic requirement of safely producing, transportation, warehousing and handling of dangerous substances is to know how to classify these substances and what dangers they contain. Also firms should realize what to do when they face with emergency in order to prevent accidents.

Railway transportation is the safest and minimum cost way of carrying these dangerous, heavy and voluminous subjects for long distances.

In the USA 94% of the loads are transported by road but for dangerous subjects this rate is only 43%. Railway transport is preferred because roads pass through regions with more population. As dangerous subject accidents cause serious damages, risk management and risk classification of the subjects are important. (Bali, 2014)

Dangerous goods supply chains don't start with raw materials but in reach scientific laboratories or test rooms. It's for this reason that every aspect of the supply chain must be safe (mining, production, transportation, handling etc.). Every single member of the supply chain, whether carrier, packager etc. is only a mediator precise instructions of scientists verified and recommended the proper and safe processes. (Babin et al., 2013)

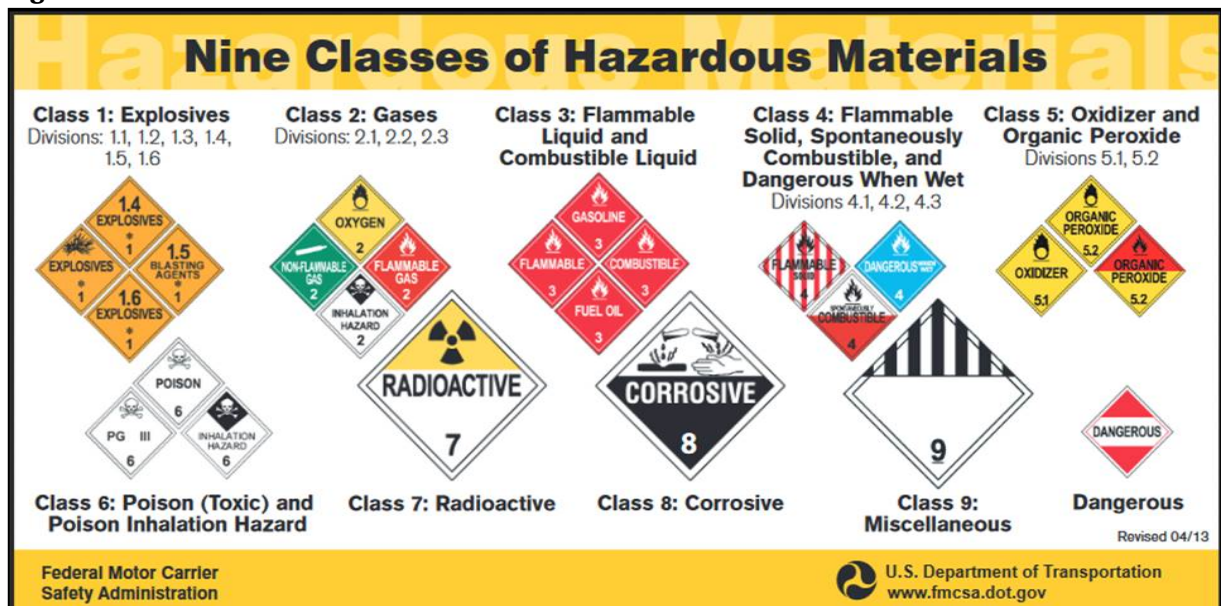
Dangerous subjects are divided into three groups. Packaging, labeling and carrying are determined and realized and also security measures are taken according to these risk groups. (Özyağcı, 2008)

**Table1. Risk groups of dangerous subjects**

Group I	Very Dangerous Subjects	(1309 aluminum dust Class 4.1)
Group II	Dangerous Subjects	(1307 Xylenes Class 3)
Group III	Low Dangerous Subjects	(1299 Turpentine dust Class 4.1)

Loading and unloading of dangerous subjects are more detailed and sensitive activities when compared to the general shipment. Especially, materials like explosives, organic peroxides, radioactive subjects that have high risk rates can create vital disasters according to negative situations during handling. (Voke, 2000)

Logistics chains are becoming increasingly exposed to risks and threats in global business operations. As a consequence, logistics chain management is becoming increasingly complex, which calls for new knowledge and shifts in the thinking of all participants of global logistics chains. (Veselko, 2009)

**Figure1. Classes of hazardous materials**

Source: <http://avonfiretraining.blogspot.com.tr/2017/03/placards-and-labels.html>

## 2. Railway Transport and Dangerous Goods

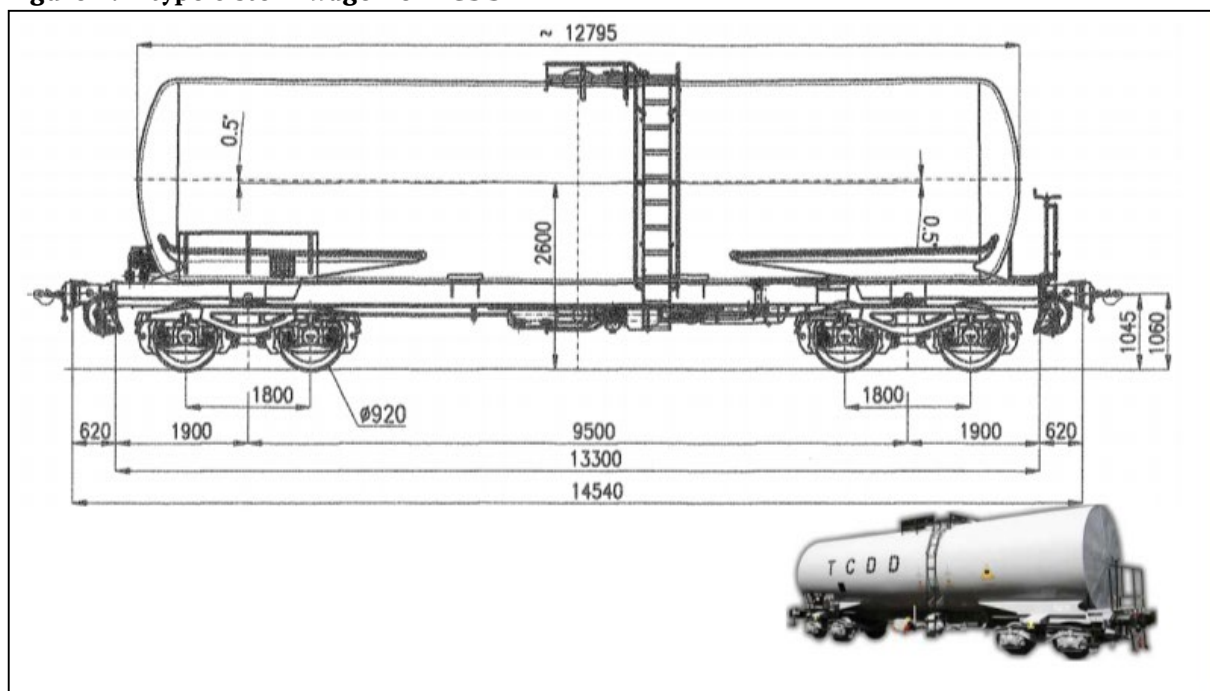
Railway transport of voluminous and heavy goods is a way of carrying without bearing cost of money. It is also eco-friendly and safe in traffic. On the other hand, rail transportation is limited because of geographic conditions and a small number of centers on the railways. (Bircan, 2006).

Railway transport will be preferred for loads over 10 tons and for distances over 450 km. It has advantageous to other transport modes thanks to fast trains, new type of wagons and integration capabilities to other modes. (Korkmaz & Tanyaş, 2014) On the other hand, it has very high infrastructure cost and number of centers connected to railway is limited. Also, geographical obstacles and terrain is disadvantageous.

RID (Intergovernmental Organization for International Carriage by Rail) is the convention for railway transportation of dangerous subjects. RID determines the rules for loading, unloading, transferring and labeling of dangerous goods in railways and also precautions to take during transport by TCDD (Turkish Republic State Railways). (Özer, 2011)

According to the RID convention, dangerous substances are carried by different vehicles and equipment in bulk or in packed condition. Vehicles and vehicle types are determined taking into account the forms and physical characteristics of dangerous substances as follows: (Görçün & Erdal, 2010).

- Wagons for packed loads
- Wagons for bulk cargo
- Crude oil tank wagons
- Chemical substances tank wagons
- Gas wagons
- Solid dangerous substance wagons

**Figure 2: Z type cistern wagon of TCDD**

In spite of all advantageous factors of railway transportation organizations should take care of a risk management system in order to mitigate risks and threads of carrying dangerous substances.

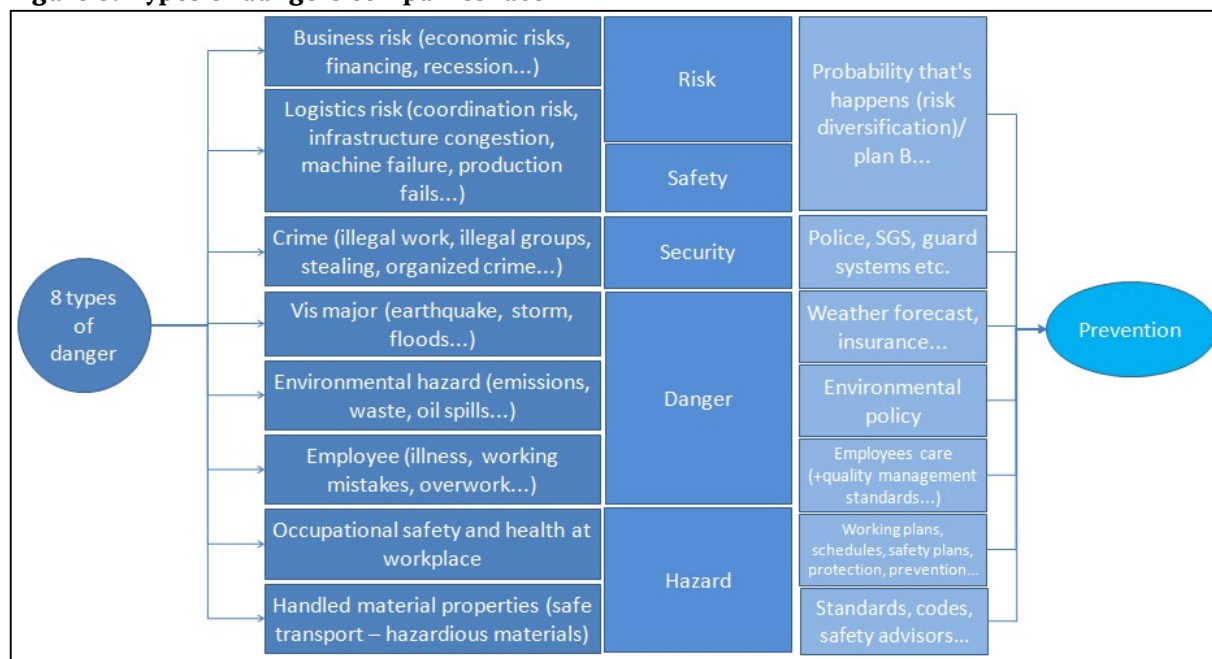
Dangerous goods logistics chains can apply numerous measures for increasing security in their operations, from the design of contingency plans, use of video surveillance, security doors, anti-virus software, tracking devices, smart containers, employment of security services and employee training to participation in international organizations for security promotion. Companies which are aware of the negative consequences that high exposure to risks and threats can have on operational efficiency are more active in mitigating the level of risk and preventing accident occurrence. (Veselko, 2009)

Risk factors in dangerous substance logistics can be classified as follows:

1. Human factor (most critical factor)
2. Firm related factors
3. Materials and packaging
4. Vehicles
5. Environment and traffic

Firms should be ready for questions about different kind of risks during dangerous goods transportation. There are so many types of dangers, hazard or risk that can endanger supply chain stability. Figure 2 shows 8 type of danger which common company can face with. (Babin et al., 2013)



**Figure 3. Types of dangers companies face**

Source: Babin M., Kendra M., Fazekas M., (2013). *Dangerous Goods Logistics*, Machines, Technologies, Materials. Issn 1313-0226. Issue 5/2013.

Efficient risk management culture means that people have a proactive approach that they can work together and define potential problems before any loss and can mitigate these risks. (Jensen, 2012) Because, risk that is a measure of the likelihood of loss, differs dangerous substance transportation from others. People who carry, load, unload, store and handle these substances should be more careful than other logistics workers.

Inside logistic structure, the risk management represents a key part of logistic management, so the risks must be taken into account in the moment of taking the logistic decisions and the opportunities will be maximized just administrating, in an active way, the risks and threats / hazards which can prevent the appearance of success. (Milandru, 2015)

Standardization is essential in dangerous goods logistics process all around the world. As standard process is more transparent, measurable and manageable, it will be easy to make a systematic intervening in emergency situations. Also documentation of the process can be available all over the world. (Akçetin, 2013)

As an example, Queensland Government emphasizes the key control measures for managing dangerous substance risks as follows: (Worksafe, 2012)

- identifying and managing hazardous areas
- controlling emissions of flammable vapors, gases and mists
- use of ventilation systems to control vapors during both normal and abnormal conditions (e.g. leak or spill)
- eliminating ignition sources from hazardous areas
- installing systems to detect leaks of flammable gases or vapors and enable response actions to be taken
- using intrinsically safe or flameproof equipment
- substituting flammable materials for ones that are less flammable or combustible
- ensuring incompatible materials (e.g. oxidizers and oils) are separated or segregated
- reducing quantities of flammable and combustible materials, including items that contribute to the fire load but that are not hazardous chemicals themselves (e.g. wooden pallets, oil)
- ensuring equipment used in handling flammable hazardous chemicals is maintained in accordance with manufacturer's instructions

- adopting good housekeeping practices to minimize accumulation of combustible dusts.

Firms also can get help from Dangerous Goods Safety Advisor (DGSA) who plans logistics process of dangerous subjects, does required labeling and informs interested parties. DGSA must be knowledgeable about logistics and have a vocational training certificate on logistics of dangerous subjects. This certificate is valid for five years and can be renewed after retraining. (UN, 2012)

### 3. Risk Management of Dangerous Substances

The aim of this study is to make the process more effective and beneficial by carrying out risk analysis in all the operational areas of the dangerous substance transport risk management business. The study was carried out in two administrations where loading and transportation services are carried out, at Turkish Republic State Railways General Directorate Izmir Harbor Management and TCDD Izmir 3rd Regional Directorate. Also on site observations and evaluations are carried out in order to improve the risk management of dangerous subject transportation.

Dangerous substances transported by road to railway loading point are transferred from vehicles to containers and wagons under the ADR and RID control standards. Containers are chosen according to dangerous subjects' content and packing capacities.

Wagons are determined appropriately for dangerous substance transport and platform wagons are selected for containers. These containers are loaded to wagons by a carrier called reach stacker.

**Figure 4: İzmir Harbor**



Safety measures are taken during handling taking into account all phases of the transfer encountered throughout the shipment period. After loading, wagons selected by RID rules wagons are attached to train. Containers then are controlled by handling after arriving port settlement which is the arriving point of railway transport. In order to take down the containers to port parking area, reach stackers are used for carrying and hoarding.

Port control seals are attached on the containers in the parking area by related personnel. Sealed containers are then loaded to main ship by the dock according to the loading plan. The containers with dangerous substances in the ship that reaches the arriving port are unloaded and carried by railway and road by reverse operations.

Organizations must be ready for emergency in dangerous subject transportation and guide decision makers and operators what to do in emergency conditions. Therefore, considering the necessary predictive approaches the firm prepares a contingency plan and organizes personnel exercises and also takes records.

**Figure 5: Dangerous substances tank for wagons**

We analyze the logistics activities of dangerous subjects realized by Turkish Republic State Railways General Directorate Izmir Harbor Management and TCDD Izmir 3rd Regional Directorate organizations. There is a list of risky activities realized during the railway transportation of dangerous substances:

1. Transport of encapsulated dynamite in wagons and containers
2. Transport of capsules and explosives together
3. Malfunction of dangerous substance carrying wagon attractors
4. Placing, loading and unloading dangerous substances inappropriately in containers and wagons
5. Dangerous substance carrying containers does not conform to international standards
6. Outpouring of dangerous substances from containers during transport
7. Non-existence or control of transport permit document
8. Keeping trains that has dangerous substance wagons at stations which has inadequate safety and lighting
9. The presence of explosive combustible material on the staff in the maneuver field
10. Delivery of dangerous goods wagons by passenger train instead of freight train
11. Maneuvering night wagons loaded with dangerous goods instead of daytime wagons
12. 15 km / h exceeding the speed of maneuvers of dangerous goods loaded wagons
13. Maneuvering while loading and unloading on transport vehicles in the loading and unloading facilities.

Suggested precautions:

	Terminals should have separate sections for storage of dangerous substances
	Transfer and warehouse terminals should have Emergency Plans
	Transfer equipments should be technical standards-compliant
	Dangerous Goods Safety Advisor (DGSA) should be employed in terminals
	There should be an equipped and trained dangerous substance team that intervenes potential accidents
	Terminals should practice with the nearest fire department
	Dangerous substance should be allowed to transport according to national and international legislations

	All kinds of documents about transported dangerous goods should be attached to transportation document
	Visible flaws in the wagon, leaks or cracks, hardware defects should be resolved
	Make sure that wagons are not overloaded
	Required labels with hazard markings should be tagged on wagons
	It must be forbidden to make fire or smoke nearer than 25 meters to dangerous substance carrying wagons
	Dangerous substance carrying wagons should be drawn to tracks away from community in the stations

#### 4. Conclusion

Today's dangerous substances firms' main aim should be to prevent possible accidents, consider the safety issue, do not harm people and the environment. The most important criteria in carrying dangerous substances is being securely delivered. Giving priority to cost and speed is not a good choice for logistics activities. Therefore, dangerous substance transport differs from other kinds of goods transport. It should be realized under national and international legislation standards and under the supervision of specialized agencies.

Railway transport is a logistics activity that increases the ability to compete due to its characteristics like low variable cost, relevance to container transport, higher loading capacity per wagon, lower risk than other transport alternatives and easy integration of other types of transport. So it is widely used in dangerous substance transportation.

In order to make the process more effective and beneficial by carrying out risk analysis in all the operational areas of the dangerous substance transport risk management business, the study was carried out in two administrations where loading and transportation services are carried out, at Turkish Republic State Railways General Directorate Izmir Harbor Management and TCDD Izmir 3rd Regional Directorate. Also on site observations and evaluations are carried out in order to improve the risk management of dangerous subject transportation.

Risk analysis has realized in the firms and some suggestions have been made for a risk management system that prevents the accidents and reduces the high costs associated with accidents by taking the necessary precautions. Firms should create a system foreseeing possible risks in dangerous substance transport and taking precautions against these risks by proactive approach.

Consequently, with the risk management studies and applications, possible great catastrophes can be minimized and human health and the environment may be affected negatively at a minimum level.

#### 5. References

- Akçetin, E. (2013). *Tehlikeli Madde Lojistiğinde Risk Yönetimi (Risk Management in Dangerous Substances Logistics)*, Nobel Akademik Yayıncılık, İstanbul.
- Babin M., Kendra M., Fazekas M., (2013). *Dangerous Goods Logistics*, Machines, Technologies, Materials. Issn 1313-0226. Issue 5/2013.
- Bali, Ö. & Göztepe, K. (2014). *Tehlikeli Madde Taşımacılığında Risk Değerlendirmesi İçin Bir İndeks Geliştirilmesi (Indexing for Risk Evaluation in Dangerous Substances Transportation)*, III.Ulusal Lojistik ve Tedarik Zinciri Kongresi, 15-17 May 2014, Trabzon.
- Bircan, D. (2006). *Tehlikeli Madde Taşımacılığında Kalite Geliştirme ve Omsan A.Ş. Örneği (Quality Development in Dangerous Substances Transportation and Omsan A.Ş. Application)*. Yüksek Lisans Tezi. Afyonkarahisar Kocatepe Üniversitesi Sosyal Bilimler Enstitüsü.
- Elaldı, P., (2011). *Intermodal Transportation Of Hazardous Materials With Supplier Selection: Application In Turkey*. A Thesis Submitted To The Department Of Industrial Engineering And The Graduate School Of Engineering And Science Of Bilkent University, 1-121.
- Görçün, Ö.F. & Erdal, M. (2010). *Tehlikeli Madde Lojistiği ve İş Güvenliği (Dangerous Substances Logistics and Job Security)*, Beta Yayınları, İstanbul.
- Jensen R., (2012) *Risk Reduction Methods for Occupational Safety and Health*, Wiley.

Korkmaz, M. ve Tanyaş, M. (2014). *Viking Karma Taşımacılık Projesi ve Samsun ili Üzerindeki Etkileri (Viking Mixed Transportaion Project and Effects on Samsun Province)*. Gümüşhane Üniversitesi Sosyal Bilimler Elektronik Dergisi. 11, 136-155.

Milandru, M. (2015). *The Risk Management, Determinant Factor of Increasing the Logistics Performance*, Review of the Air Force Academy No 3 (30).

Özer. B.B, (2011). *Türkiye’de Karayolu İle Tehlikeli Madde Taşımacılığının Avrupa Anlaşması (ADR)’na Geçiş Kapsamında Analizi (Analysis of Dangerous Substances Road Transportaion in Turkey Within the scope of transition to European Agreement (ADR))* . Yüksek Lisans Tezi. İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü.

Özyağcı. S, (2008). *Tehlikeli Maddelerin Karayolu ile Taşınması (Dangerous Substances Transportaion by Road)*. Yüksek Lisans Tezi. İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü.

UN. (2012). *European Agreement Concerning the International Carriage of Dangerous Goods By Road (ADR)*, Volume I. New York and Geneva: United Nations, 2012a. s.i-632. CiltI.978-92-1-055476-3.

Veselko,G. & BRATKOVIČ, T. (2009). *Managing Risks and Threats in Global Logistics Chains*, Pomorstvo, god. 23, br. 1 (2009), str. 67-85.

Voke R. (2000) “*Transport of Dangerous Goods, A Short Guide to the International Regulations*”, Process Safety and Environmental Protection, Volume 78, Issue 2. March.

Worksafe, Workplace Health and Safety Queensland, (2012). *Managing The Risks From Dangerous Goods*, Queensland Goverment. (<https://www.worksafe.qld.gov.au/injury-prevention-safety/hazardous-chemicals/managing-hazchem-risks/fire-and-explosion-risks#risk>)



# **Organizational Psychosocial Factors as Predictors of Work Exhaustion and Occupational Commitment: An Extension of the Job Demand-Control-Support Model**

Secil Bal Tastan

## **1. Introduction**

The purpose of the study is to examine the influence of organizational variables (organizational injustice, unfavorable organizational career growth, alienation, work overload, and unfavorable work environment) on individual outcomes of work exhaustion and occupational commitment. The Job Demand-Control-Support (DCS) Model that was proposed by Karasek (1979) is often used in studies examining work-related psychosocial exposures. Job demands act as psychological stressors in the work environment and have been found to be associated with high levels of exhaustion and low levels of positive work and attitudinal outcomes such as organizational and occupational commitment. The model was subsequently extended to consider support at work: the demand-control-support, or DCS model. Work characterized by high demands, low decision latitude, and low support decreases health and well-being. Karasek (1979) stated that job strain results from a combination of high psychological demands (such as having to work hard and fast) with little freedom to make decisions affecting work (e.g., fixed schedules; subordinate rank; piece-work pay schedule). Karasek's DCS model classifies jobs into categories according to level of psychological demand, decision latitude or job control and perceived support from workplace. DCS model based research have examined the contribution of the job demands to explain the depletion of the personal energy process, even though they are positively associated with work exhaustion (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007; Fernet, Austin, & Vallerand, 2012).

Building on this model, the potential organizational psychosocial factors that may predict work exhaustion and occupational commitment have been investigated for the conceptual framework of this study. Psychological job demands, or workload, are defined by Karasek (1979) as psychological stressors present in the work environment (e.g., high pressure of time, high working pace, difficult and mentally exacting work). According to DCS model view, psychological strains and exhaustion at work are the consequences of the joint effects of the demands of a job and the range of job control available to the employee (de Jonge & Kompier, 1997). These joint effects are also called interaction effects. DCS model proposed that the strongest adverse strain reactions (e.g. poor health and well-being) will occur when job demands are high and employee's control is low (i.e. so-called high work exhaustion). In addition, the model suggested that work motivation, well-being, learning and growth would not occur in situations where job demands are high (de Jonge, Bosma, Peter, & Siegrist, 2000, p.1318). There has been empirical support in the literature that the job strain can be an outcome of the interaction effects of the work dimensions. Empirical research on the DCS model have reported that studies have provided support for interaction effects between demand and control predicting work exhaustion (e.g., Spector, 1987; Schnall, Landsbergis, & Baker, 1994; Perrewe & Anthony, 1990; Dollard, Winefield, Winefield, & de Jonge, 2000). Based on the recent reviews of the DCS model (Kristensen, 1995; de Jonge & Kompier, 1997; Schaubroeck & Merritt, 1997; Rodrigues, Bravo, Peiro, & Schaufeli, 2001; Nomura, Nakao, Takeuchi, & Yano, 2009) it was argued that Job DCS Model is appropriate for further empirical investigation. Recent reviews of the model indicated that the model has been shown to predict employee health, work exhaustion, strain, and motivational and attitudinal outcomes (e.g., Schnall, Landsbergis, & Baker, 1994; Kristensen, 1996; Bosma, Peter, Siegrist, & 1998; de Jonge & Kompier, 1997; van der Doef & Maes, 1998; Dollard et al., 2000, Veldhoven, Taris, de Jonge, & Broersen, 2005; Bakker, Demerouti, & Euwema, 2005; Hall, Dollard, Tuckey, Winefield, & Thompson, 2010; Sleman & Vuleta, 2014; Taştan, 2016). Thus, this study has been built on DCS model framework proposing that

employee job strain could be hypothesized with the job demands, personal and organizational resources, and control over work. In sum, this study focused on the investigation of how organizational psychosocial factors are associated with the negative work outcome of perceived work exhaustion and attitudinal outcomes of occupational commitment.

Work exhaustion is the fundamental stress component of burnout representing a feeling of energy loss and a sense of being completely drained out of emotional and physical strength at work. Exhaustion is the fundamental stress component of burnout (Halbesleben & Bowler, 2007) representing a feeling of energy loss and a sense of being completely drained out of emotional and physical strength (Nagar, 2012). Emotional exhaustion as a core dimension of burnout is a severe impairment of psychological well-being. Maslach, Schaufeli, and Leiter (2001, 399) defined exhaustion as “feelings of being overextended and depleted of one’s emotional and physical resources”. Work exhaustion is characterized by feelings of emotional depletion, extreme tiredness, a lack of energy and a feeling of being drained of emotional resources to cope with continuing demands in the workplace (Cordes & Dougherty, 1993; Maslach et al., 2001). It refers to feelings of strain, particularly chronic fatigue resulting from overtaxing work (Maslach et al., 2001, 398). In addition to employee perceptions of workplace factors (Alarcon, 2011; Lee & Ashforth, 1996), work exhaustion has been positively related to job strain (Cordes & Dougherty, 1993) and work ineffectiveness (Halbesleben & Bowler, 2007).

Furthermore, occupational commitment was defined as career commitment as one’s attitude to one’s profession or vocation. In this study, affective occupational commitment concept has been examined based on the idea of psychological attachment, like a psychological contract between the individual and the occupation. A person-occupation relationship represents the interaction between a worker and his/her job role demand (Tubre & Collins, 2000). The overall construct of occupational commitment can be conceptualized as the sense of attachment workers feel towards their occupations. (Becker & Carper, 1956). It is based on the concept of professionalism, namely the extent to which individual members identify with their profession and endorse its values. In fact, occupational commitment is an umbrella used to describe one’s commitment to a number of work related targets; namely, to one’s career, profession and occupation (Cooper-Hakim & Viswesvaran, 2005). Thus, occupational commitment is a psychological and rational attachment, involvement, personal dedication and perceived meaningfulness towards an occupation (Porter & Smith, 1970; Kanungo, 1982; Cohen & Lowenberg, 1990).

As exhaustion is at the core of burnout, it is important to add our understanding of the psychosocial and other factors in the work environment that may contribute to exhaustion among employees. Organizational-based factors have been known to induce “work exhaustion” for employees at the workplace (Greenhaus & Beutell, 1985). These factors are commonly termed as organizational stressors since they serve as agents that trigger the various stress reactions (von Onciul, 1996). Among the numerous organizational sources of stress, only five psychosocial variables of the organization-based factors were investigated in this study namely work overload, blocked career, alienation, organizational injustice, and psychological harassment. From the extant literature, organizational injustice (procedural and relational injustice), blocked career in organization, alienation, work overload and unfavorable work environment which is characterized with psychological harassment were indicated to be related with higher level of work exhaustion and lower level of occupational commitment since they manifest as job demands (Eg., Nasurdin, Ramayah, & Kemaresan, 2005; Sonnentag, Kuttler, & Fritz, 2010; Helkavaara, Saastamoinen, & Lahelma, 2011). Recently, further work-related psychosocial factors have been included in health and organizational behavior research, devoting attention to management styles and the workplace climate. Good social relations at work and fair work environment are important resources for employee psychological health, however, these factors may also cause strain on employees (Payne, 2001; Taştan, 2014).

“Organizational justice” focuses on the fairness of decision making in organizations and the treatment of individuals by their supervisors and the evaluations of the employees related to the fairness perception influence other work-related variables (Moorman, 1991; Al-Zu’bi, 2010). Employee’s perceptions relate to three dimensions of organizational justice: distributive justice, procedural justice, and interactional justice. Distributive justice refers to the perceived fairness of the

outcomes that an individual receives from organization (Al-Zu'bi, 2010). Interactional (relational) justice describes concerns about the fairness of the non-procedurally dictated aspects of interaction (Folger & Cropanzano, 2001). Procedural justice represents individuals' perceptions of the fairness of the process used to make decisions affecting them, such as those relating to pay, promotions, and punishment (Thibaut & Walker, 1975). Organizational injustice and psychological harassment at the workplace have been found to be associated with various mental and physical health problems. It has been argued that a lack of influence on the decision-making process and evaluations of interpersonal inequality and create a stressful situation, which may foster psychological distress (Tepper, 2001; Vermunt & Steensma, 2003; Rousseau, Salek, Aube & Morin, 2009; Helkavaara et al., 2011). The linkages between organizational injustice and work exhaustion and strain are accrued in line with the general acceptance of organizational injustice as a workplace stressor itself. With that view, organizational injustice is regarded as one of any other stressors (e.g. work overload, role conflict, etc.) and thus it can directly cause work exhaustion (Cropanzano, Goldman, & Folger, 2005; Szilas, 2011; Taştan, 2014).

Moreover, presence of "psychological harassment" reflects the social atmosphere at workplaces. Workplace hostility, harassment, aggression, and mobbing are the forms of unfavorable work environment and elements of emotional abuse. Psychological harassment involves repeated or persistent psychological hostility over an extended period of time. We reviewed research on abusive supervision (Tepper, 2000), social undermining (Duffy, Scott, Shaw, Tepper, & Aquino, 2012), bullying and mobbing (e.g., Einarsen, 1999; Leymann, 1990; Namie, 2000), harassment (Brodsky, 1976), and generalized workplace abuse (Richman, Flaherty, & Rospenda, 1996) as examples of repeated and enduring hostility by focusing on the concept of psychological harassment. Thus, the individual who is repeatedly exposed to coworkers' or supervisors' verbal or nonverbal, but nonphysical, aggressive behaviors attacking their person is said to be undergoing psychological harassment at work (Waldron, 2000). Previous study (Helkavaara et al., 2011, 1) the organizational injustice and bullying at the workplace has significant positive associations with emotional exhaustion. Although the literature on occasional aggression has tended to focus more on antecedents than effects, research on persistent interpersonal hostility such as psychological harassment has been primarily focused on documenting the effects of exposure. A number of studies provide a listing of the well-established effects of psychological harassment on negative psychological, behavioral, and organizational outcomes (E.g., Tepper, 2000; Keashly & Jagatic, 2003; Schat & Kelloway, 2003; Keashly & Harvey, 2005; Sondaite & Vinciūnaitė, 2017).

In addition, "workload" has been indicated as being among the highly prevalent job stressors at work (Hill, Ferris, Mårtinson, 2003; Ngo, Foley, & Loi, 2005). High workload refers to the experience of having too much to do in the time available (Spector & Jex, 1998). Research has shown that high workload is associated with increased negative affect during work and that negative affect tends to spill over from the work to the personal life domain (Ilies, Schwind, Wagner, Johnson, DeRue, & Ilgen, 2007; Sonnentag et al., 2010). We propose that high workload will be negatively related to occupational commitment but positively related to work exhaustion.

On the other hand, it is suggested that "alienation at the workplace" can also lead to higher stress and work exhaustion and lower occupational commitment. Thoits (1995) discovered that alienation has a positive effect on work exhaustion. Feelings of alienation are likely to result when employees are required to work alone or when there is low social identification and social integration in the workplace. Kanungo (1981) stated that alienation causes separation between self and the job or other work related contexts, a sense of frustration that finally manifested in behavioral and attitudinal outcomes. Other scholars also indicated negative outcomes of alienation at work (Mirovisky & Ross, 1986; Eugene, 1999). Alienation in a work context was considered to have a strong impact on work outcomes, such as job satisfaction, organizational citizenship behavior, occupational and organizational commitment, and work stress (E.g., DeHart-Davis & Pandey, 2005; Sarros, Tanewski, Winter, Santora, & Densten, 2002; Sulu, Ceylan, & Kaynak, 2010; Suárez-Mendoza & Zoghbi-Manrique-de-Lara, 2008; Tummers & den Dulk, 2011). Recently, Tummers and Den Dulk (2013,2) reported that work alienation has negative effect on organizational commitment, work effort and work-to-family enrichment. Furthermore, it is



posited that when employees perceived “a lack of career opportunities”, they are likely to feel uncertain about their future in the organization, which in turn, are likely to induce stress. Foot and Venne (1990) found a positive relationship between barriers to career advancement and job stress. In this study, we examined the lack of career opportunities of career growth by pointing out the concept of “blocked career”. Much of the research by vocational psychologists and organizational scholars on the effects of career growth focuses on viewing career growth experiences from the perspective of one's experiences within their current organization. Weng (2010) proposed that employee organizational career growth could be captured by four factors: career goal progress, or the degree to which one's present job is relevant to and provides opportunities for one to realize their career goals; professional ability development, or the extent to which one's present job enables them to acquire new skills and knowledge; promotion speed, an employee's perceptions of the rate and probability of being promoted; and remuneration growth, or employee perceptions of the speed, amount, and likelihood of increases in compensation. Moreover, organizational career growth and personal development opportunities can be seen as favorable organizational conditions such as promotions, job enrichment, career planning, personal training&development, etc. (Bedeian, Kemery, & Pizzolatto, 1991; Weng, 2010). Employee believes that these conditions and opportunities lead their personal and occupational development. According to perceived organizational support (POS) theory, there are psychological processes underlying consequences of POS. On the basis of the “reciprocity norm” and “POS” career growth produces a felt commitment to occupation and to help to reduce work related stress and exhaustion. Career growth also leads to perceptions of caring, approval, and respect, so it fulfills socioemotional needs, increase social identity, self-esteem, self-efficacy, etc. When there is blocked career, the occupational future is uncertain for the employees (Foot & Venne, 1990; Nasurdin et al., 2005). Additionally, career growth opportunities increase employees' performance, positive occupational attitudes and coping with stressful work events. Consequently, in this study blocked career as referred as lack of career growth is investigated. Since organizational career growth reflects the fact that it refers to one's career growth within one's current organization, blocked career is suggested to reflect one's assessment of their blocked or lack of career opportunities over their total career in the organization. The development of occupational commitment begins with occupational choice and changes based on actual experience (Weng & McElroy, 2012, 257). Early in one's career, occupational commitment is typically low, but positive job experiences that illuminate career goals, explore different careers and achieve better person-job fit help build affective occupational commitment (Goulet & Singh, 2002). Therefore, the degree that an organization provides for career growth via activities that meet career goals, develop one's professional abilities, and rewards individuals for those activities should enhance their emotional attachment to their chosen occupation and help to decrease work related stress. This is consistent with the works of Thomas (2000) showing that meeting career goals and developing new skills are related to occupational commitment and of Darden, Hampton, and Howell (1989) showing a relationship between perceived increases in work related rewards and satisfaction with one's current occupation. Along with these findings, Weng and McElroy (2012) reported a positive association between organizational career growth and affective occupational commitment. Thus, it is suggested that when employees perceived a lack of career opportunities, they are likely to feel uncertain about their future in the organization, which in turn, are likely to induce work exhaustion and to decrease occupational commitment.

Fundamentally, the theoretical framework of the study was developed by suggesting that each of the organizational variables would act as psychological stressors and lead to higher level of work exhaustion and lower level of occupational commitment. Consequently, based on the theoretical background and previous evidences, the following hypotheses are generated.

- H1. Organizational injustice is positively related to perceived work exhaustion.
- H2. Organizational injustice is negatively related to perceived occupational commitment.
- H3. Blocked career in organization is positively related to work exhaustion.
- H4. Blocked career in organization is negatively related to occupational commitment.
- H5. Perceived alienation at work is positively related to work exhaustion.
- H6. Perceived alienation at work is negatively related to occupational commitment.

- H7. Work overload is positively related to work exhaustion.  
 H8. Work overload is negatively related to occupational commitment.  
 H9. Psychological harassment is positively related to work exhaustion.  
 H10. Psychological harassment is negatively related to occupational commitment.

## 2. Method

### 2.1. Sample and Procedure

This exploratory study used a predictive, cross-sectional based design in selected schools in Istanbul-Turkey. To test the propositions, a field survey using questionnaires was conducted between April 2017 and December 2017. Statistical population in this study included 252 educational members of 7 public schools (primary, secondary, and high schools) in European region of İstanbul-Turkey. It is suggested that in the education sector there is intensive work related exhaustion and for educational staff, occupational commitment plays an important role in performing their jobs. Thus, it is found meaningful for investigating how the psychosocial factors of work environment were perceived and how these factors influenced educational staff's emotional and attitudinal outcomes of work exhaustion and occupational commitment. Participation to this survey was voluntary and the participants were informed of this.

As a results of the questionnaire survey a total of 252 questionnaires were returned out of 300 questionnaires for a response rate of 84% (252/300). 65% of the participants were female and 35% were male. Most (58%) of the employees who responded were 31-40 years of age, and 81% had bachelor degree of education. The descriptive results showed that 78% of the participants were teachers and 22% were both teachers and administrators in the schools. The results of the descriptive statistics are presented in Table 1.

Table 1. Descriptive statistics of respondents

Item	Description	Percentage
Gender	Male	35%
	Female	65%
Age	Below 30	18%
	31-40	58%
	41-50	25%
	51+	10%
Education	Bachelor Degree	81%
	Master	18%
	Doctorate	1%
Title	Teacher	78%
	Administrator	22%

### 2.2. The Scales

Totally 78 items of the questionnaire were responded to on a six-point scale with responses ranging from strongly agree (6) to strongly disagree (1). The Turkish translations and adaptation of the scales were done by the researcher and a cross-check was applied by five academicians.

“Measurement of Work Exhaustion” (10 items): Work exhaustion was measured by using an inventory which has been developed as a subscale from the Maslach Burnout Inventory (MBI) (Maslach and Jackson, 1981).

“Measurement of Occupational Commitment” (12 items): Occupational commitment was measured by using 12 item scale of Carson and Bedeian (1994). The original scale measures 3 sub-dimension. Affective-Continuous-Normative Commitment of Occupation.

“Organizational Injustice” (17 items): Measured by utilizing 22-item scale of Niehoff and Moorman (1993) which was composed of three sub facets, namely distributive (5), procedural (6), and interactional justice (11) (with reverse items). However, due to the scope of the research we used the sub facets of procedural and relational (interactional) injustice.

“Measurement of Work Overload” (4 items): 4 items of Moore’s (2000) Perceived Work Overload Scale were designed to measure work overload perceptions of the participants.

“Measurement of Alienation” (5 items): Alienation was assessed by the scale used by Nasurdin et al. (2010).

“Measurement of Blocked Career in Organization” (6 items): Items were developed from the works Ivtzan, Sorensen, & Halonen, (2013) and Weng and McElroy (2012).

“Measurement of Psychological Harassment” (24 items): 24 item scale developed by Björkqvist and Österman (1998) was used. (six-point scale with responses ranging from 1-never...6-very often was used). The scale assessed excessive criticism, offensive comments about one’s private life, ridicule in front of others, etc. in the last 6 months. This instrument has 4 sub-dimensions, named as attacks on the person (humiliation), attacks on the social relationships (isolation) and attacks on the private life (including rumors)

### 3. Findings

#### 3.1. Reliability and Validity Analysis

To test the content validity, after devising a framework for the questionnaire, the authors asked 5 professors to modify it if needed. These professors evaluated all the implemented criteria in the questionnaire and confirmed it. Also face validity was confirmed through the participation of 10 people from various educational institutions. Further, Exploratory Factor Analysis (EFA) was performed for reliability evaluation the author utilized Cronbach's alpha. The results of the factor loadings demonstrated that the minimum eigen-value recorded is 0.581 with the highest value 0.890. The Cronbach's alpha reliability of all 7 variables were more than 0.7, which indicates that all the scales demonstrated good reliability (Table 2).

Table 2. The summary statistics of survey

Factors	Number of questions	Mean	Std. Deviations	$\alpha$
Work Exhaustion	10	4.9755	0,96	0.88
Occupational Commitment	12	3.4625	0,89	0.87
Organizational Injustice	17	3.6012	1,16	0.89
Blocked Career in Organization	6	4.3326	1,09	0.85
Psychological Harassment	24	3.4563	0,91	0.83
Alienation	5	3.0244	0,88	0.91
Work Overload	4	4.7623	1,15	0.92

#### 3.2. Test of Hypotheses

Correlation analysis and multiple regression analysis were performed to evaluate the relationships between the research variables (Table 3 and Table 4).

Table 3. Correlation Analysis

Variables	Work Exhaust	Occupational Comm.	3	4	5	6	7
1. Work Exhat.	1	-.325*	.511	.455	.187	.523	.448
2. Occup. Comm.	-.325*	1	-.303*	-.393*	.128*	.298*	-.355*
3. Org. Injustice	.511	-.303*	1	.129	.156	.188	.301
4. Blocked Career	.455	-.393	.129	1	.204	.123	.112
5. Alienation	.187	-.028	.156	.204	1	.136	.288
6. Work Overload	.523	-.298	.188	.123	.136	1	.303
7. Psych. Harass.	.448	-.355*	.301	.112	.288	.303	1

Pearson Correlation Test (N:252;  $p < 0.05$ )

Each psychosocial variable except alienation had positive significant relationship with work exhaustion and significant negative relationship with perceived occupational commitment. "Organizational injustice" had positive relationship with work exhaustion ( $r=0.511$ ;  $p<.05$ ) and negative relationship with occupational commitment ( $r=-0.303$ ;  $p<.05$ ). "Blocked career" had positive relationship with work exhaustion ( $r=0.455$ ;  $p<.05$ ) and had negative relationship with occupational commitment ( $r=-0.393$ ;  $p<.05$ ). "Work overload" showed positive relationships with work exhaustion ( $r=0.523$ ;  $p<.05$ ) and negative relationship with occupational commitment ( $r=-0.298$ ;  $p<.05$ ). "Psychological harassment" had positive relationship with work exhaustion ( $r=0.448$ ;  $p<.05$ ) and negative relationship with occupational commitment ( $r=-0.355$ ;  $p<.05$ ). Finally, the findings showed that "alienation" had significant positive relationship with work exhaustion ( $r=0.187$ ;  $p<.05$ ), however there is no significant relationship between alienation at work and occupational commitment. Alienation ( $r=-0.028$ ;  $p=0.523$ ;  $p < 0.05$ ). The documented results indicated that all hypotheses except H6 (Perceived alienation at work is negatively related to occupational commitment) were supported.

Furthermore, the regression model was found to be significant for the research model ( $F=43.563$ ;  $p<0.05$ ) of work exhaustion (Table 4). The organizational psychosocial variables explained 62% of the change in work exhaustion and explained 59% of the change in occupational commitment. Injustice and work overload contributed to work exhaustion more than other psychosocial variables. Blocked career and psychological harassment contributed to occupational commitment more than other psychosocial variables.

Table 4. Summary results of coefficients of regression analysis

Dependent Variable: Work Exhaustion			
Independent Variables	Beta	t Value	P Value
Constant		1.766	0.02
Org. Injustice	0.508	1.969	0.03
Work Overload	0.538	3.622	0.01
Blocked Career	0.445	2.293	0.00
Psychological Harassment	0.452	4.267	0.02
Alienation	0.165	4.125	0.01
R=0.705; R <sup>2</sup> =0.617; F Value=42.551; $p < 0.05$			

#### 4. Discussion and Conclusion

In the literature, the association between psychosocial factors at work and employees' physical and psychological health has been studied within various organizational settings and industries. This study was built on "Karasek's Model of Job Strain" called as DCS Model (Demand-Control-Support) and for assessing the role of job demands in individuals' affective and attitudinal outcomes of perceived work exhaustion and occupational commitment; an empirical study was conducted in Turkey by involving the participation of educational staff working in seven schools located in Istanbul. As a result, the study demonstrated how psychosocial factors and work related outcomes are associated.

Some hints were found regarding the potential associates of psychosocial factors of work and organization to perceived work exhaustion and occupational commitment. All five factors including Karasek's model and contextual factors had significant weak or moderate relations with work exhaustion. Only alienation didn't have significant relationship with occupational commitment. The descriptive results showed that the magnitude of injustice and work overload was relatively high among the educational staff. Also psychological harassment ( $M=3.45$ ) and blocked career in the organization ( $M=4.33$ ) are relatively high. This is a question for occupational health and personal development and for modern empowering organizations. Specifically, the findings of the present study are consistent with the prior literature suggesting the potential relationships between work exhaustion and the psychosocial factors of the work environment and the occupational commitment and workplace stressors (de Jonge et al., 2000; Payne, 2001; Nasurdin et al., 2005; Sonnentag et al., 2010; Fernet et al., 2012; Weng and McElroy, 2012; Taştan, 2014; Taştan, 2016).

These results may provide implication for Turkish educational institutions. The findings of this study may contribute to the literature and the works on positive organizational behavior and workplace stress. As a limitation, it is suggested that the sample size should be larger in order to enable better generalizability of the findings. The same respondents answered all questions related to each of the variables (self-report problem). Further researches can be conducted on large-scale organizations, sectors, academics-education, health, and also in different cities or countries for generalizing findings.

#### 5. References

- Alarcon, G. M. (2011). A meta-analysis of burnout with job demands, resources, and attitudes. *Journal of Vocational Behavior*, 79(2), 549-562.
- Al-Zu'bi, H. A. (2010). A study of relationship between organizational justice and job satisfaction. *International Journal of Business and Management*, 5(12), 102-124.
- Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of occupational health psychology*, 10(2), 170-197.
- Becker, H. S., & Carper, J. W. (1956). The development of identification with an occupation. *American journal of Sociology*, 61(4), 289-298.
- Bedeian, A. G., Kemery, E. R., & Pizzolatto, A. B. (1991). Career commitment and expected utility of present job as predictors of turnover intentions and turnover behavior. *Journal of Vocational Behavior*, 39(3), 331-343.
- Björkqvist, K., & Österman, K. (1998). Scales for research on interpersonal relations. *Pro Facultate*, 4, 12-126.
- Bosma, H., Peter, R., Siegrist, J., & Marmot, M. (1998). Two alternative job stress models and the risk of coronary heart disease. *American journal of public health*, 88(1), 68-74.
- Brodsky, C. M. (1976). *The harassed worker*. DC Heath & Co., U.S.A.
- Carson, K. D., & Bedeian, A. G. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. *Journal of Vocational Behavior*, 44(3), 237-262.
- Cohen, A., & Lowenberg, G. (1990). A re-examination of the side-bet theory as applied to organizational commitment: A meta-analysis. *Human Relations*, 43(10), 1015-1050.
- Cooper-Hakim, A., & Viswesvaran, C. (2005). The construct of work commitment: testing an integrative framework. *Psychological bulletin*, 131(2), 241-262.
- Cordes, C. L., & Dougherty, T. W. (1993). A review and an integration of research on job burnout. *Academy of Management Review*, 18(4), 621-656.

Cropanzano, R., Goldman, B., & Folger, R. (2005). Self-interest: Defining and understanding a human motive. *Journal of Organizational Behavior*, 26(8), 985-991.

Darden, W. R., Hampton, R., & Howell, R. D. (1989). Career Versus Organizational Commitment: Antecedents And Con. *Journal of Retailing*, 65(1), 80-97.

De Jonge, J. & Kompier, M.A.J. (1997). A Critical Examination of the Demand-Control-Support Model from a Work Psychological Perspective. *International Journal of Stress Management*, 4(4), 235-258.

De Jonge, J., Bosma, H., Peter, R., & Siegrist, J. (2000). Job strain, effort-reward imbalance and employee well-being: a large-scale cross-sectional study. *Social Science&Medicine*, 50(9), 1317-1327.

DeHart-Davis, L., & Pandey, S. K. (2005). Red tape and public employees: Does perceived rule dysfunction alienate managers?. *Journal of Public Administration Research and Theory*, 15(1), 133-148.

Dollard, M. F., Winefield, H. R., Winefield, A. H., & Jonge, J. (2000). Psychosocial job strain and productivity in human service workers: a test of the demand-control-support model. *Journal of Occupational and Organizational Psychology*, 73(4), 501-510.

Duffy, M. K., Scott, K. L., Shaw, J. D., Tepper, B. J., & Aquino, K. (2012). A social context model of envy and social undermining. *Academy of Management Journal*, 55(3), 643-666.

Einarsen, S. (1999). The nature and causes of bullying at work. *International Journal of Manpower*, 20(1/2), 16-27.

Eugene, J.W. (1999). The impact of work resources on job stress among correctional treatment staff. *Journal of Addictions and Offender Counseling*, 20(1), 26-34.

Fernet, C., Austin, S., & Vallerand, R.J. (2012). The effects of work motivation on employee exhaustion and commitment: An extension of the JD-R model. *Work & Stress*, 26(3), 213-229.

Folger, R., & Cropanzano, R. (2001). Fairness theory: Justice as accountability. *Advances in Organizational Justice*, 1, 1-55.

Foot, D. K., & Venne, R. A. (1990). Population, pyramids and promotional prospects. *Canadian Public Policy/Analyse de Politiques*, 387-398.

Foot, D.K., & Venne, R. (1990), Population, Pyramids and Promotional Prospects. *Canadian Public Policy*, 14(4), 387-398.

Tummers, L., & Den Dulk, L. (2013). The effects of work alienation on organisational commitment, work effort and work-to-family enrichment. *Journal of Nursing Management*, 21(6), 850-859.

Goulet, L. R., & Singh, P. (2002). Career commitment: A reexamination and an extension. *Journal of Vocational Behavior*, 61(1), 73-91.

Greenhaus, J. H., & Beutell, N. J. (1985). Sources of conflict between work and family roles. *Academy of Management Review*, 10(1), 76-88.

Halbesleben, J. R., & Bowler, W. M. (2007). Emotional exhaustion and job performance: the mediating role of motivation. *Journal of Applied Psychology*, 92(1), 93-115.

Hall, G. B., Dollard, M. F., Tuckey, M. R., Winefield, A. H., & Thompson, B. M. (2010). Job demands, work-family conflict, and emotional exhaustion in police officers: A longitudinal test of competing theories. *Journal of occupational and organizational psychology*, 83(1), 237-250.

Helkavaara, M., Saastamoinen, P., & Lahelma, E. (2011). Psychosocial work environment and emotional exhaustion among middle-aged employees. *BMC Research Notes*, 4(1), 101-120.

Hill, E. J., Ferris, M., & Martinson, V. (2003). Does it matter where you work? A comparison of how three work venues (traditional office, virtual office, and home office) influence aspects of work and personal/family life. *Journal of Vocational Behavior*, 63(2), 220-241.

Ilies, R., Schwind, K. M., Wagner, D. T., Johnson, M. D., DeRue, D. S., & Ilgen, D. R. (2007). When can employees have a family life? The effects of daily workload and affect on work-family conflict and social behaviors at home. *Journal of Applied Psychology*, 92(5), 1368-1389.

Ivtzan, I., Sorensen, E., & Halonen, S. (2013). The effect of occupational meaningfulness on occupational commitment. *International Journal of Psychological Research*, 6(2), 15-23.

Jesús Suárez-Mendoza, M., & Zoghbi-Manrique-de-Lara, P. (2008). The impact of work alienation on organizational citizenship behavior in the Canary Islands. *International Journal of Organizational Analysis*, 15(1), 56-76.

- Kanungo, R. N. (1981). Work alienation and involvement: Problems and prospects. *Applied Psychology*, 30(1), 1-15.
- Kanungo, R. N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67(3), 341-363.
- Karasek, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, 24, 285-308.
- Keashly, L., & Harvey, S. (2005). Emotional abuse in the workplace. In S. Fox and P. Spector (eds.), *Counterproductive work behaviors* (pp. 201-236). Washington, DC: American Psychological Association.
- Keashly, L., & Jagatic, K. (2003). By any other name: American perspectives on workplace bullying. *Bullying and emotional abuse in the workplace: International Perspectives in Research and Practice*, 2(4), 31-61.
- Kristensen, T. (1995). The demand-control-support model: Methodological challenges for future research. *Stress and Health*, 11(1), 17-26.
- Kristensen, T. S. (1996). Job stress and cardiovascular disease: a theoretic critical review. *Journal of occupational health psychology*, 1(3), 246-266.
- Lee, R. T., & Ashforth, B. E. (1996). A meta-analytic examination of the correlates of the three dimensions of job burnout. *Journal of Applied Psychology*, 81(2), 123-144.
- Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, 5(2), 119-126.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Organizational Behavior*, 2(2), 99-113.
- Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397-422.
- Mirovisky, J., and Ross, E. (1986). Social patterns of distress. *Annual Review of Sociology*, 12, 23-45.
- Moore, J.E. (2000). *One road to turnover: an examination of work exhaustion in technology professional*. *MIS Quarterly*, 24, 141-168.
- Moorman, R. H. (1991). Relationship between organizational justice and organizational citizenship behaviors: Do fairness perceptions influence employee citizenship?. *Journal of Applied Psychology*, 76(6), 845-864.
- Nagar, K. (2012). Organizational commitment and job satisfaction among teachers during times of burnout. *Vikalpa*, 37(2), 43-60.
- Namie, G. (2000). Workplace bullying: The silent epidemic. *Employee Rights Quarterly*, 1(2), 1-12.
- Nasurdin, A. M., Ramayah, T., Kemareshan, S. (2005). Organizational stressor and job stress among managers: The moderating role of neuroticism. *Singapore Management Review*, 27(2), 63-79.
- Ngo, H.Y., Foley, S., & Loi, R. (2005). Work role stressors and turnover intentions: Study of professional clergy in Hong Kong. *International Journal of Human Resource Management*, 16, 2133-2146.
- Niehoff, B., & Moorman, R. H. (1993). Justice as a mediator of the relationship between methods of monitoring and organizational citizenship behavior. *Academy of Management Journal*, 36(3), 527-556.
- Nomura, K., Nakao, M., Takeuchi, T., & Yano, E. (2009). Associations of insomnia with job strain, control, and support among male Japanese workers. *Sleep Medicine*, 10(6), 626-629.
- Payne, N. (2001). Occupational stressors and coping as determinants of burnout in female hospice nurses. *Journal of Advanced Nursing*, 33(3), 396-405.
- Perrewe, P. L., & Anthony, W. P. (1990). Stress in a steel pipe mill: The impact of job demands, personal control, and employee age on somatic complaints. *Journal of Social Behavior and Personality*, 5(3), 77.
- Porter, L. W., & Smith, F. J. (1970). *The etiology of organizational commitment*. Unpublished manuscript, University of California, Irvine, U.S.A..
- Richman, J. A., Flaherty, J. A., & Rospenda, K. M. (1996). Perceived workplace harassment experiences and problem drinking among physicians: Broadening the stress/alienation paradigm. *Addiction*, 91(3), 391-403.

Rodríguez, I., Bravo, M. J., Peiró, J. M., & Schaufeli, W. (2001). The Demands-Control-Support model, locus of control and job dissatisfaction: a longitudinal study. *Work & stress*, 15(2), 97-114.

Rousseau, V., Salek, S., Aubé, C., & Morin, E. M. (2009). Distributive justice, procedural justice, and psychological distress: The moderating effect of coworker support and work autonomy. *Journal of Occupational Health Psychology*, 14(3), 305-328.

Sarros, J. C., Tanewski, G. A., Winter, R. P., Santora, J. C., & Densten, I. L. (2002). Work alienation and organizational leadership. *British Journal of Management*, 13(4), 285-304.

Schat, A. C., & Kelloway, E. K. (2003). Reducing the adverse consequences of workplace aggression and violence: The buffering effects of organizational support. *Journal of Occupational Health Psychology*, 8(2), 110-129.

Schaubroeck, J., & Merritt, D. E. (1997). Divergent effects of job control on coping with work stressors: The key role of self-efficacy. *Academy of Management Journal*, 40(3), 738-754.

Schnall, P. L., Landsbergis, P. A., & Baker, D. (1994). Job strain and cardiovascular disease. *Annual Review of Public Health*, 15(1), 381-411.

Schnall, P. L., Landsbergis, P. A., & Baker, D. (1994). Job strain and cardiovascular disease. *Annual review of public health*, 15(1), 381-411.

Sleman, R., & Vuleta, V. (2014). *Association between job strain and health. A cross-sectional study within a native Swedish and immigrant population*. Unpublished Doctorate Thesis, Program in Public Health Science with Health Economics, University of Gothenburg, Sweden.

Sondaitė, J., & Vinciūnaitė, G. (2017). Experience of workplace psychological harassment. *International Journal of Psychology: A Biopsychosocial Approach*, 19, 83-103.

Sonnentag, S., Kuttler, I., & Fritz, C. (2010). Job stressors, emotional exhaustion, and need for recovery: A multi-source study on the benefits of psychological detachment. *Journal of Vocational Behavior*, 76(3), 355-365.

Spector, P. E. (1987). Method variance as an artifact in self-reported affect and perceptions at work: Myth or significant problem?. *Journal of Applied Psychology*, 72(3), 438.

Spector, P. E., & Jex, S. (1998). Development of four self-report measures of job stressors and strain: interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms inventory. *Journal of Occupational Health Psychology*, 3(4), 356-378.

Sulu, S., Ceylan, A., & Kaynak, R. (2010). Work alienation as a mediator of the relationship between organizational injustice and organizational commitment: Implications for healthcare professionals. *International Journal of Business and Management*, 5(8), 27-48.

Szilas, R. F. (2011). *Work Stress and organizational justice*. Unpublished Doctorate Dissertation, Corvinus University, Budapest.

Taştan, S. B. (2014). Predicting psychological strain with job demands and organizational injustice through the implications of job demand-control model and fairness theory. *Postmodern Openings Journal*, 5(4), 111-143.

Taştan, S. B. (2016). Predicting job strain with psychological hardiness, organizational support, job control and work overload: An evaluation of Karasek's DCS model. *Postmodern Openings*, 7(1), 107-130.

Tepper, B. J. (2001). Health consequences of organizational injustice: Tests of main and interactive effects. *Organizational Behavior and Human Decision Processes*, 86(2), 197-215.

Thibaut, J. W., & Walker, L. (1975). *Procedural justice: A psychological analysis*. L. Erlbaum Associates, U.S.A..

Thoits, P. A. (1995). Stress, coping, and social support processes: Where are we? What next?. *Journal of Health and Social Behavior*, 11(4), 53-79.

Thomas, K. W. (2000). *Intrinsic motivation at work—Building energy and commitment*. San Francisco: Berrett-Koehler.

Tubre, T. C., & Collins, J. M. (2000). Jackson and schuler (1985) revisited: a meta-analysis of the relationships between role ambiguity, role conflict, and job performance1. *Journal of Management*, 26(1), 155-169.



Tummers, L., & den Dulk, L. (2011). Meaningful work for a meaningful life? Work alienation and its effects in the work and the family context. *Workshop Paper, NIG Conference, Strategic HRM in the Public Sector and Public Values*, Retrieved from <https://repub.eur.nl/pub/31286/>.

Van der Doef, M., & Maes, S. (1998). The job demand-control (-support) model and physical health outcomes: A review of the strain and buffer hypotheses. *Psychology and health*, 13(5), 909-936.

Van Veldhoven, M., Taris, T. W., de Jonge, J., & Broersen, S. (2005). The relationship between work characteristics and employee health and well-being: how much complexity do we really need?. *International Journal of Stress Management*, 12(1), 3-26.

Vermunt, R., & Steensma, H. (2003). Physiological relaxation: Stress reduction through fair treatment. *Social Justice Research*, 16(2), 135-149.

Von Onciul, J. (1996). ABC of work related disorders. Stress at work. *BMJ: British Medical Journal*, 313(7059), 745-763.

Waldron, V. R. (2000). Relational experiences and emotion at work. *Emotion in Organizations*, 2, 64-82.

Weng, Q. X. (2010). Career Growth Study: Scale development and validity test. *Management Review*, 22(10), 22-31.

Weng, Q., & McElroy, J. C. (2012). Organizational career growth, affective occupational commitment and turnover intentions. *Journal of Vocational Behavior*, 80(2), 256-265.

Xanthopoulou, D., Bakker, A.B., Demerouti, E., Schaufeli, W.B. (2007). The role of personal resources in the job demands-resources model. *International Journal of Stress Management*, 14, 121-141.

# An Assessment on the Environmental Protection Expenditures and Services of the Municipalities in Turkey

Hakan Yas

## 1. Introduction

Agenda 21 adopted at the United Nations Conference on Environment and Development (UNCED) in Rio de Janeiro in 1992 or the World Summit on Sustainable Development held in Johannesburg in 2002 are the first global sustainable development roadmaps for humankind. Beginning from the Brundtland Report (WCED, 1987), the decision makers in any state have been much more aware of the relationship between environment and development. The global environmental consciousness, however, has begun to raise as of 1968, when The Club of Rome was founded (Keleş & Hamamcı, 2002, s. 23). Nonetheless, the nation-states are not the only actors in implementing the environmental policies. The actors of the implementation of environmental policies can be stated as citizens, international organisations, international regimes being a part of, and associations or institutions being a member of, in addition to decision makers (Orhan, 2014, p. 7). Moreover, the reports of the international organizations such as United Nations, World Health Organization, persistently give an enormous amount of responsibilities to the actors concerning environmental issues.

The United Nations, one of the international organizations concerning about environmental issues, set the Millennium Development Goals which were the translations of the vision of the world leaders in 2000 and expected to conclude at the end of 2015, as to eradicate extreme poverty and hunger, to achieve universal primary education, to promote gender equality and empower women, to reduce child mortality, to improve maternal health, to combat HIV/AIDS, malaria and other diseases, to ensure environmental sustainability, and global partnership for development (United Nations, 2015a) (United Nations, 2015b, p. 1).

The Seventh MDG, described as ensuring environmental sustainability, consists of four targets, which are set out as below:

Target 7A: Integrate the principles of sustainable development into country policies and programs; reverse loss of environmental resources,

Target 7B: Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss

Target 7C: Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation

Target 7D: By 2020, to have achieved a significant improvement in the lives of at least 100 million slum-dwellers

United Nations also add some indicators to these targets for monitoring progress. For the targets 7A and 7B, there are seven indicators which are proportion of land area covered by forest, CO<sub>2</sub> emissions, total, per capita and per \$1 GDP (PPP), consumption of ozone-depleting substances, proportion of fish stocks within safe biological limits, proportion of total water resources used, proportion of terrestrial and marine areas protected, proportion of species threatened with extinction. The two indicators of the Target 7C are the proportion of the population with sustainable access to an improved water source, urban and rural, and proportion of urban population with access to improved sanitation, whereas the indicator of the Target 7D is the proportion of urban population living in slums (United Nations, 2008).

As of 2015, the United Nations called World leaders in order to take decisions on ambitious long-term sustainability to be able to succeed the MDGs. For this purpose, a new development agenda adopted on 25 September 2015 at the United Nations Sustainable Development Summit, which includes 17 sustainable development goals (SDGs), also known as the Global Goals, expected to build on the achievements of the MDGs (United Nations, 2015b, p. 3) (United Nations Development Programme,

2015). Amongst 17 SDGs, clean water and sanitation (no.6), affordable and clean energy (no.7), sustainable cities and communities (no.11), responsible consumption and production (no.12), and climate action (no.13) are related to both environmental issues and sustainable development.

Besides the international actors concerning about the environmental issues, the environmental protection at the state level can be achieved in two tiers: central government and local governments (Keleş & Hamamcı, 2002, s. 293). Environmental problems are of particular concern to municipalities, notably being a concern to a city or citizens. Cities where 54% of the world's population live in (EMF, 2017), are the settlements where the processes of production and consumption which cause several pollution types and resource depletion, intensively occur (Orhan, 2014, p. 8). The principal assignments and responsibilities of municipalities, the primarily responsible authorities for urban areas, on environmental protection which is a public good or service have the characteristics of administrative enforcement services (Keleş & Hamamcı, 2002, s. 309). In public goods or services, the more the increase in the size of the authority responsible for that good or service, the less the costs are. On the other hand, the more the increase in the size of the authority, the less the benefit the population utilises.

Table 1 shows the municipalities in Turkey by their types and by their population range, in order to provide an insight into the magnitude of municipal budget and expenditures. As the total number of SPAs which are existing in solely non-metropolitan provinces is 51, tabulating the amount is found unnecessary.

**Table 1. Municipalities by Their Types and Population Range**

POPULATION RANGE	METROPOLITAN	PROVINCIAL	METROPOLITAN DISTRICT	DISTRICT	TOWN	TOTAL	CUMULATIVE TOTAL
0 – 1.999			2	4	6	1	109
2.000 – 4.999			10	2	5	09	539
5.000 – 9.999			42	30	90	30	718
10.000 – 24.999			111	8	9	79	912
25.000 – 49.999		1	107	1	8	94	1053
50.000 – 99.999		3	74	3	1	41	1145
100.000 – 249.999		24	88	5		2	1260
250.000 – 749.999	1	23	79	3		15	1363
749.999 – 999.999	7		6			03	1376
1.000.000 +	22					3	1.398
TOTAL	30	51	519	402	396	1.398	

Note: Data retrieved from TÜİK Addressed Based Population Registration System (TurkStat, 2018) and Ministry of Interior (Ministry of Interior of Turkish Republic, 2018) and is rearranged.

According to the Table 1, there are 30 metropolitan municipalities, 51 non-metropolitan provincial municipalities, and 1.317 district and town municipalities, 519 of which are metropolitan

district municipalities, 402 of which are non-metropolitan provincial district municipalities, and 396 of which are town municipalities.

Laws no. 5393, 5216, and 5302 which are the fundamental laws of municipalities and SPAs, give a set of assignments and responsibilities to these authorities. According to Law No. 5393, environmental assignments and responsibilities of municipalities (district, town, and non-metropolitan municipalities) are as followings:

- To fulfil environment, environmental health, sweeping, sewer system, and solid waste (collect and disposal) facilities,
- Reforestation,
- To build parks and green areas, where appropriate and responsible for,
- To gather non-sanitary enterprises in certain places,
- To determine storage areas for landfill of scrap, excavation soil, rubble, sand, and etc.
- To take measures for preventing the environmental pollution,
- To make landscape plan, where necessary

Law No. 5216 specifies the environmental assignments and responsibilities of metropolitan municipalities as below:

- To ensure the protection of the environment, agricultural lands and water basins,
- Reforestation<sup>†</sup>,
- To gather non-sanitary enterprises in certain places<sup>†</sup>,
- To determine storage areas for landfill of scrap, excavation soil, rubble, sand, and etc. <sup>†</sup>,
- To take measures for preventing the environmental pollution<sup>†</sup>,
- To make a metropolitan master plan for waste management,
- To establish and conduct plants for industrial and medical wastes,
- To build parks and green areas where appropriate and responsible for<sup>†</sup>

The articles with the symbol “†” are just the same with the assignments and responsibilities of district, town, and non-metropolitan municipalities. This sameness is an issue to be solved as this kind of overlapping assignments and responsibilities may either increase the desirousness of the authorities responsible for these duties or cause them to be apathetic to fulfil these duties. Given that the power to fulfil the assignments or responsibilities is not assigned between the different levels of government explicitly, the authority that needs to allocate more financial source to meet these duties might undertake the fulfilment. In such a case, the waste of resources, but especially financial ones, may occur (Nadaroğlu, 2001, p. 56).

In addition to the overlapping issue of the municipalities, a similar situation is valid for the SPAs. In the Law No. 5302, the assignments and the responsibilities of SPAs are separated regarding the SPAs responsibility area, which is urban or rural. The geographical responsibility area of SPAs encompasses mostly the rural areas where the village administrations, another local government unit in Turkey, are responsible. As the centre unit of SPAs is settled in the centre of provinces, it is mostly cost-inefficient and at a price to bring services to rural areas. Given the fact that Law No. 442, The Law on Village, make the villages responsible for the rural areas, and give them some environmental assignments and responsibilities already, it is a repetition to provide same services by two separate authorities.

Under these circumstances, the aspects of environmental protection expenditures by the types of local governments, the second discussion topic of the study, gain importance. According to the Article 127 of the Constitution of the Republic of Turkey, local governments shall be allocated financial resources in proportion to their assignments and responsibilities.

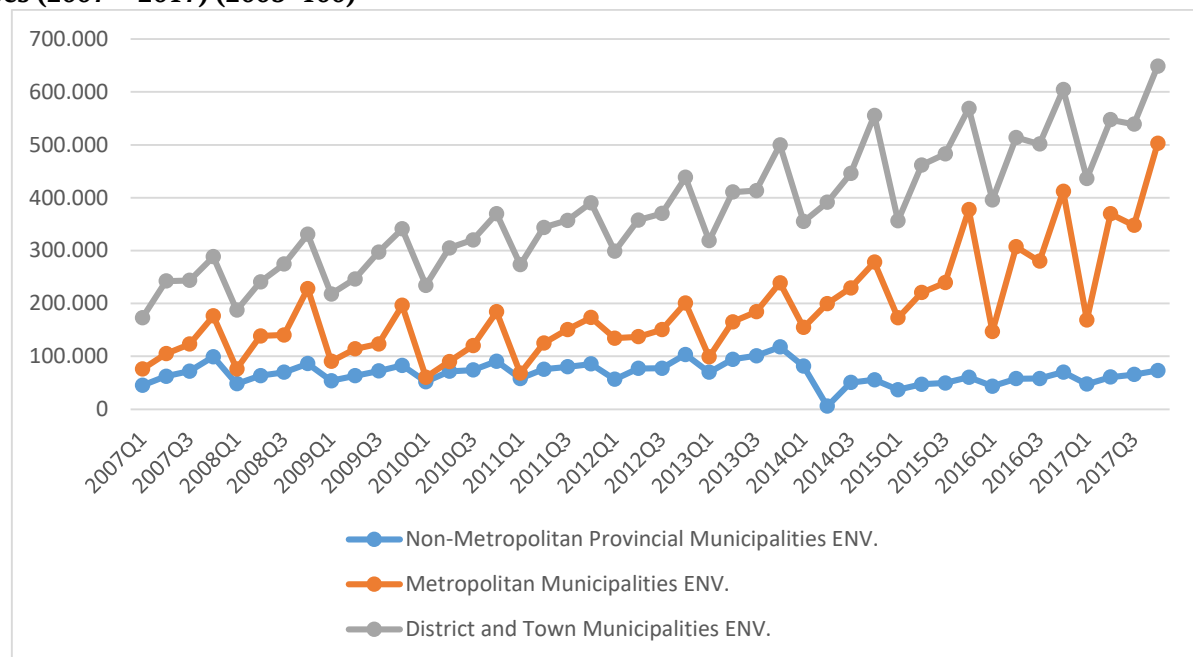
## 2. Method

The environmental assignments and responsibilities of municipalities and SPAs laid down by their legislation denote that non-metropolitan municipalities, even district and town municipalities or provincial municipalities, are the most missioned and responsible ones amongst all local governments. The total number of these types of local governments is 921 (519 metropolitan district and 402 district municipalities) and 396, respectively. A glance from the quantitative majority perspective testifies the plenteousness of the environmental assignments and responsibilities of these governments.

Although the research has reached its aims, there are some limitations to data. The data retrieved from GDBFC presented in three groups for the municipalities: budget statistics of metropolitan municipalities, budget statistics of non-metropolitan provincial municipalities, and budget statistics of district and town municipalities. Concerning the statistics kept, we encounter two limitations. First, the total amount of budget expenditures of district and town municipalities include not only the districts out of metropolitan areas but also the districts of metropolitan municipalities. It leads to a difficulty that it is not possible to separate the total amounts of expenditures of the district municipalities in metropolitan provinces from the non-metropolitan ones. Second, due to the Law No. 6360, came into effect in 2014, the number of metropolitan municipalities increased whereas the number of non-metropolitan provincial municipalities diminished. Therefore, there are profound fluctuations in the amounts of budget statistics of all municipality types, in the transition period from the year 2013 to 2014.

The environmental expenditures of the local governments are legally counted under 'environmental protection services' in budgeting procedures of local governments in Turkey. The authority supervising and setting out the rules of the budgeting procedures of local governments is General Directorate of Budget and Fiscal Control. According to functional classification explanations of the authority, environmental protection services include waste management services, sewage services, pollution reduction services, protection of natural environment and biodiversity, research and development services related to environmental protection, and unclassified environmental protection services (GDBFC, 2018). The amounts shown in the following figures and tables are deflated in order to purify the effect of inflation on the budget statistics of the local governments.

**Figure 1. Deflated Environmental Protection Expenditure Amounts of Municipalities by Types (2007 – 2017) (2003=100)**

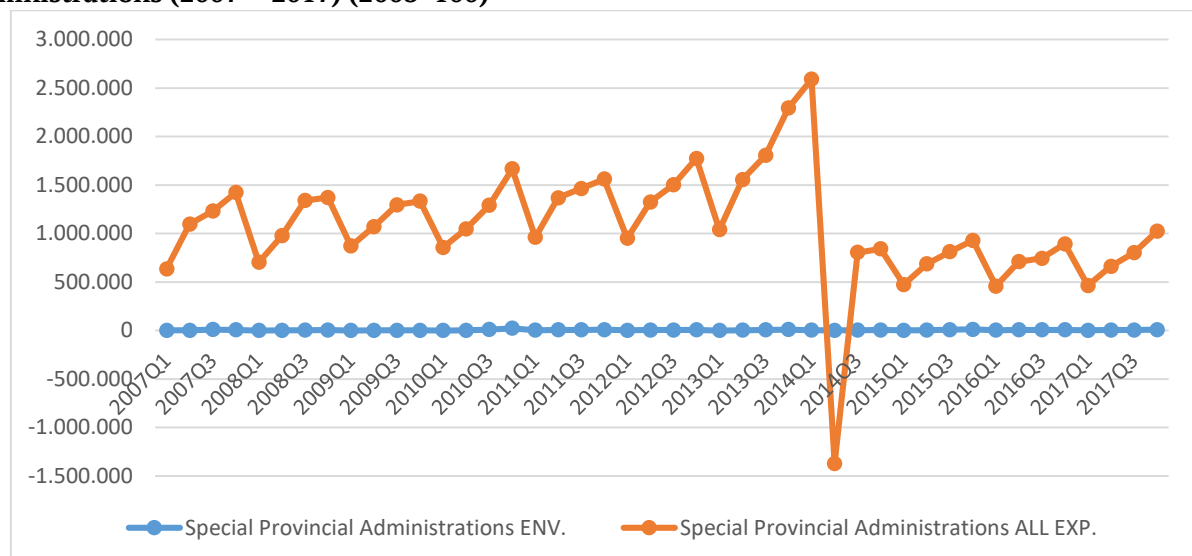


Note: Data retrieved from (GDBFC, 2018) and figured.

Figure 1 indicates the total quarterly expenditures on environmental protection of municipalities by their types from 2007 to 2017. Although the total amount of environmental protection expenditures of district and town municipalities are higher than the others, it is parallel to their numerical majority. For instance, as there are only 51 non-metropolitan provincial municipalities, their total expenditure amount indicates meagre level amongst others. The said expenditures of non-metropolitan municipalities, however, are trending upwards slightly in the last four years. Nevertheless, the total

environmental expenditures amount of district and town municipalities have escalated more than two times in the last ten years, taking into consideration the end of the years.

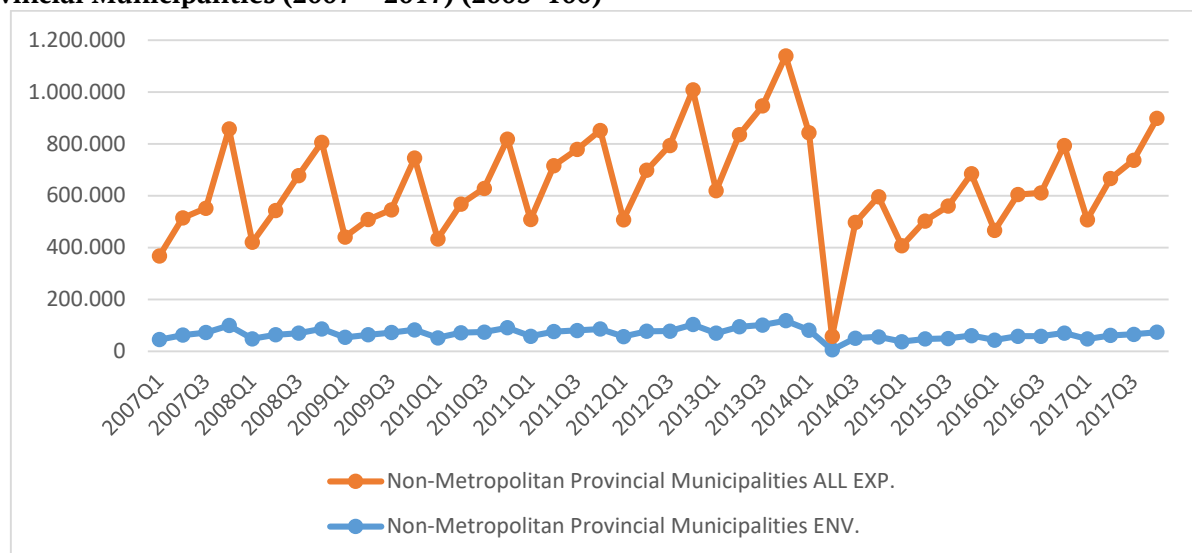
**Figure 2. Deflated Environmental Protection Expenditure Amounts of Special Provincial Administrations (2007 – 2017) (2003=100)**



Note: Data retrieved from (GDBFC, 2018) and figured.

Figure 2 shows an extremely plunge in the 3<sup>rd</sup> quarter of 2014 due to the shrink, from 81 to 51 thanks to the Law No. 6360, in the total number of SPAs. Nonetheless, there is also an upward trend beginning from that date.

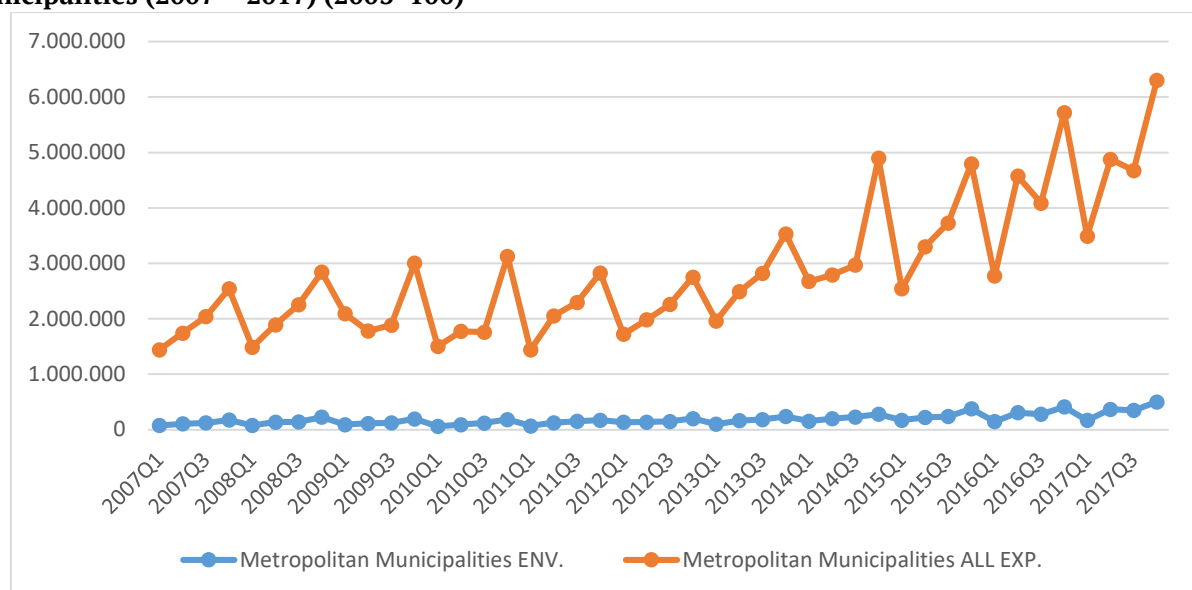
**Figure 3. Deflated Environmental Protection Expenditure Amounts of Non-Metropolitan Provincial Municipalities (2007 – 2017) (2003=100)**



Note: Data retrieved from (GDBFC, 2018) and figured.

As shown in Figure 3, a similar plunge in both environmental protection expenditures and all expenditures is seen in the 3<sup>rd</sup> quarter of the year 2014 due to the issue mentioned above. Taking into consideration the end of the years, not quarters, however, it cannot be said that a change experienced in the period investigated. The Figure also shows that the share of the total amount of environmental protection expenditures in all expenditures is meagre, approximately 9%. Moreover, the total environmental protection expenditures declined in the same period.

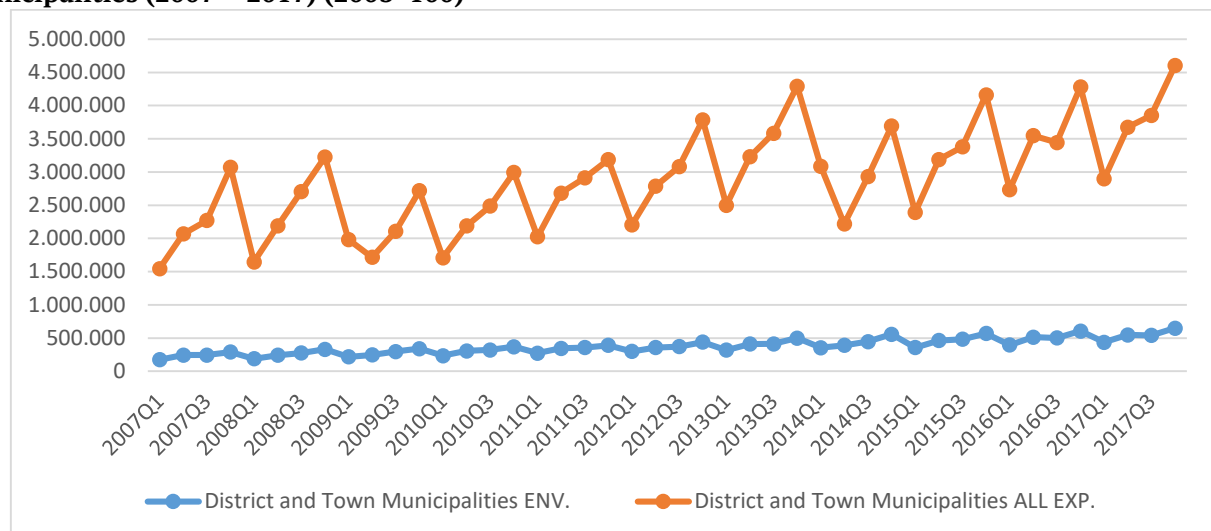
**Figure 4. Deflated Environmental Protection Expenditure Amounts of Metropolitan Municipalities (2007 – 2017) (2003=100)**



Note: Data retrieved from (GDBFC, 2018) and figured.

Figure 4 indicates two points on metropolitan municipalities. First, metropolitan municipalities allocate only 8% share of their total budgets to environmental protection expenditures, which is contradictory to their comprehensive environmental assignments and responsibilities. Second, the most increase in environmental protection expenditures is experienced in metropolitan municipalities, which increased to approximately 185% from the end of the year 2007 to the end of 2014.

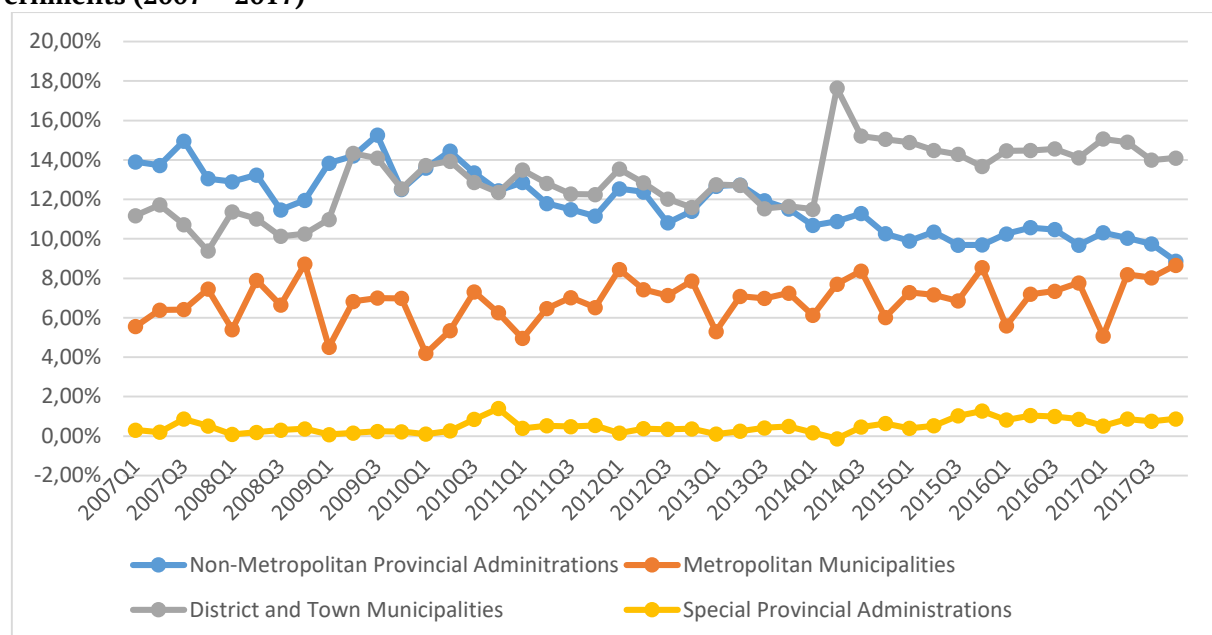
**Figure 5. Deflated Environmental Protection Expenditure Amounts of District and Town Municipalities (2007 – 2017) (2003=100)**



Note: Data retrieved from (GDBFC, 2018) and figured.

Figure 5 shows that the share of environmental protection expenditures in all expenditures is over 14%, which is the highest number amongst all local governments. Also, the total amount of environmental protection expenditures increased nearly 125%.

**Figure 6. Share of Environmental Protection Expenditures in Total Expenditures of Local Governments (2007 – 2017)**



Note: Data retrieved from (GDBFC, 2018) and figured.

According to Figure 6, showing the shares of environmental protection expenditures of all local governments in their total expenditures, district and town municipalities have the higher share amongst others on this topic. The least share is of the SPAs, with a proportion under 1%, and SPAs have not much increased this share in the period, only from 0,31% to 0,87%. However, the metropolitan municipalities have increased their share from 5,56% to 8,67%, in the same period. In contrast to the metropolitan municipalities, the same share for the non-metropolitan provincial municipalities shrank from 14% to nearly 9%.

### 3. Findings

The figures of indicators for monitoring progress of MDGs indicate that Turkey does not reach the targets set by United Nations. As of 2015, Turkey only presents the data on the proportion of the population using an improved drinking water source and the proportion of the population using an improved sanitation facility to the United Nations. The latest figures for the proportion of terrestrial and marine areas protected, and the proportion of urban population living in slums belong to 2014. As of 2013, the figures for the consumption of ozone-depleting substances have not been declared. The figures for carbon dioxide emissions have similarly not been declared since 2012. The figure for the proportion of land area covered by forest has not been presented since 2010. The figures for the proportion of fish stocks within safe biological limits, the proportion of total water resources used, and the proportion of species threatened with extinction have not been presented for more than ten years regularly (United Nations, 2015c).

Local governments in Turkey, except villages, are entrusted a large number of assignments and responsibilities by both their legislation and by related laws. Furthermore, these governments gradually increase the share of environmental expenditures, as shown in Table 2.



**Table 2: Selected budget statistics and their trend of local governments in Turkey by their type**

Type of Local Government	2007Q4 (TL)	2013Q4 (TL)	2017Q4 (TL)	% Change (2007-2013)	% Change (2007-2017)
Non-Metropolitan Provincial Municipalities ENV. EXP.	99.027	117.666	73.224	18,82%	-26,06%
Metropolitan Municipalities ENV. EXP.	176.283	239.001	502.662	35,58%	185,14%
District and Town Municipalities ENV. EXP.	288.247	499.993	648.794	73,46%	125,08%
Special Provincial Administrations ENV. EXP.	7.401	11.280	8.863	52,42%	19,76%
Non-Metropolitan Provincial Municipalities ALL EXP.	758.561	1.021.272	825.269	34,63%	8,79%
Metropolitan Municipalities ALL EXP.	2.364.614	3.293.564	5.800.425	39,29%	145,30%
District and Town Municipalities ALL EXP.	3.071.179	4.292.777	4.602.011	39,78%	49,85%
Special Provincial Administrations ALL EXP.	1.415.797	2.284.643	1.014.124	61,37%	-28,37%

Note: Data retrieved and gathered from (GDBFC, 2018).

On the other hand, there are overlapping assignments and responsibilities in municipal legislation between metropolitan and other municipalities.

Local governments in Turkey, except villages, gradually increase the share of environmental expenditures, in different levels, depending on their type. Despite its slight increase in environmental protection expenditures, SPAs neglect to implement their environmental assignments and responsibilities; they allocate only 1% of the budget for environmental protection expenditures, as of the end of 2017. The costs of providing the environmental protection services are quite high for SPAs as the distance between both rural areas they are responsible for and their central unit.

Although the sharp increase as of 3<sup>rd</sup> quarter of 2014, but slightly go downwards from that date, district and town municipalities are the tiers that allocate most of their budget to environmental protection expenditures among others, with 14%.

Metropolitan municipalities had the share 9% for the same and grow the share in the period.

#### 4. Concluding Remarks and Policy Implications

Initially, it should be underlined that Turkey does not meet both the indicators for monitoring progress of MDGs and SDGs relating environment and sustainable development. Taking into consideration the fact that Turkey is stepping on the way of more centralisation in contrast to decentralisation efforts in the world, the State does also not tend to obey the international agreements or undertakings signed.

It is crucial to explicitly separate the overlapping and common environmental assignments and responsibilities of local governments by coding a law, in order to create an effective environmental protection system. For instance, the responsibilities such as reforestation and taking measures for preventing the environmental pollution are given both non-metropolitan and metropolitan municipalities.

The assignments and responsibilities on environmental protection services should be withdrawn from SPAs for two reasons:

- In the present situation, they do not tend to spend due to efficiency rationales,
- The villages already can provide these services through their own means, which is the most efficient and cost-reductive manner.

As the district municipalities already allocate their resources sufficiently and mostly, it could be efficient for metropolitan municipalities to step back for the most of the environmental protection expenditures, such as waste management services (i.e. garbage collection), pollution reduction services. Research and development services related to environmental protection is more appropriate for their coordination role over the district municipalities.

#### References

- EMF. (2017). *Cities in the Circular Economy: An Initial Exploration*. Ellen MacArthur Foundation. Retrieved from [https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Cities-in-the-CE\\_An-Initial-Exploration.pdf](https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Cities-in-the-CE_An-Initial-Exploration.pdf)
- GDBFC. (2018). *General Directorate of Budget and Fiscal Control*. Retrieved July 30, 2018, from Functional Classification: <https://www.bumko.gov.tr/Eklenti/7828,03fonksiyonel09102013pdf.pdf?0>
- Keleş, R., & Hamamcı, C. (2002). *Çevrebilim* (4. ed.). Ankara: İmge Kitabevi.
- Law on Village, 442 (Official Gazette April 7, 1924).
- Metropolitan Municipalities Law, 5216 (Official Gazette July 23, 2004).
- Ministry of Interior of Turkish Republic. (2018). *Inventory of Turkey Civil Administration Units*. Retrieved June 20, 2018, from Civil Administration Divisions: <https://www.e-icisleri.gov.tr/Anasayfa/MulkiIdariBolumleri.aspx>
- Municipal Law, 5393 (Official Gazette July 13, 2005).
- Nadaroğlu, H. (2001). *Mahalli İdareler: Teorisi Ekonomisi Uygulaması*. Kırklareli: Beta Basım Yayım Dağıtım.
- Orhan, G. (2014). *Türkiye'de Yerel Yönetimler ve Çevre*. Bursa: Ezgi Kitabevi.
- Special Provincial Administration Law, 5302 (Official Gazette March 4, 2005).
- TurkStat. (2018, June 20). *Municipality, Village and Neighbourhood Populations*. Retrieved from Addressed Based Population Registration System: <https://biruni.tuik.gov.tr/medas/?kn=95&locale=tr>
- United Nations. (2008, January 15). *Official list of MDG indicators*. Retrieved from The official United Nations site for the MDG Indicators: <http://mdgs.un.org/unsd/mdg/Host.aspx?Content=Indicators/OfficialList.htm>
- United Nations. (2015a). *Millennium Development Goals and Beyond 2015*. Retrieved August 15, 2018, from United Nations: <http://www.un.org/millenniumgoals/>
- United Nations. (2015b). *The Millennium Development Goals Report*. UN Department of Public Information.

United Nations. (2015c, July 06). *Series Data*. Retrieved from The official United Nations site for the MDG Indicators: <http://mdgs.un.org/unsd/mdg/Data.aspx?cr=792>

United Nations Development Programme. (2015, September 25). *World leaders adopt Sustainable Development Goals*. Retrieved June 20, 2018, from News Centre: <http://www.undp.org/content/undp/en/home/presscenter/pressreleases/2015/09/24/undp-welcomes-adoption-of-sustainable-development-goals-by-world-leaders.html>

WCED. (1987). *Our Common Future*. Oslo: World Commission on Environment and Development.

# Changes in exports of the Central and Eastern European countries: An Analysis In Value Added Terms

Lukasz Ambroziak

## 1. Introduction

Since the 1980s the increasing involvement of countries in the processes of production fragmentation has contributed to a strong internationalisation of production. At present, there is virtually no processed product fully manufactured in a single country. The manufacture of processed goods involves producers from various countries, importing raw materials, materials and semi-finished products, carrying out their further processing and exporting them as products, frequently used in other countries as components and semi-finished products for downstream producers (OECD, 2013). Before it is intended for final consumption the end product has repeatedly crossed the borders of a number of countries and contains value added by many manufacturers. The traditional computation of the value of international trade flows in gross terms (by measuring the value of goods crossing the borders of individual custom areas) has become less useful. The result is the development of world input-output tables, serving to generate trade statistics in value added terms which take account of the contribution of particular countries to the creation of value added and eliminate the multiple calculation in trade of components, first separately (as intermediate goods) and then as parts of final goods (UNCTAD, 2013).

Studies using trade statistics in value added terms mostly concern changes in the trade of the USA, the euro area countries, Japan and China. Since the early 1990s, the majority of the Central and Eastern European countries (CEECs) have also been actively involved in the processes of production fragmentation, becoming destinations for foreign capital in the form of foreign direct investment. The phenomenon triggered major changes in the foreign trade of the countries in question. Several authors have investigated those changes. Cieřlik, Biegańska and Środa-Murawska (2016), Hagemejer and Ghodsi (2017) and Ambroziak (2018) analysed the position of the CEECs in global value chains. Grodzicki (2014) and Ambroziak (2017) examined the competitive position – of the Visegrad countries and of the CEECs respectively – in their international trade. Olczyk and Kordalska (2017) studied the effects of selected factors on gross and value added exports of manufactures in seven Central and Eastern European countries (the Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovakia and Hungary). However, none of the authors relied on the WIOD Release 2016, containing data until 2014. The last year covered tended to be 2011 or prior years.

The aim of the paper is to present changes in the foreign trade (in goods and services) of ten Central and Eastern European countries (Bulgaria, the Czech Republic, Estonia, Hungary, Lithuania, Latvia, Poland, Romania, Slovakia and Slovenia – CEECs) in 2000–2014 using trade statistics in value added terms. They allow to determine the origin of the value added content of exports of the CEECs.

The starting point of this paper is the presentation of selected aspects relating to trade statistics in value added terms. It is followed by a description of the research method. Further, the paper discusses the analysis results, in particular: the decomposition of gross exports of the CEECs by value added content, the differentiation of foreign value added in exports across industries and the share of services in exports. The paper concludes in the recapitulation of the main findings from the study, limitation of the investigation and possible research areas.

## 2. The application of input-output tables in the measurement of value added in trade

An input-output table contains a statistical description of production activities in a particular industry of the economy concerned over a specified period (usually one year). In other words, such a table provides information on the creation and distribution of the product in the economy, with a special focus on the relationships between production industries at intermediate stages of manufacturing

(Leontief, 1986). Initially, input-output tables were designed as models of the whole economies, but as early as the mid-1950s such tables began to include linkages between a number of countries and regions. One example can be the GTAP (*Global Trade Analysis Project*) launched in the early 1990s. This project (still in progress) aims to build a quantitative general equilibrium model for the analysis of the world economy processes.

The development of international input-output tables is difficult and time-consuming as it requires the ‘alignment’ of national input-output tables with data on bilateral trade of specific countries. It is also necessary to properly assign foreign value added to the initial countries of origin, which is a complex task due to the high degree of the fragmentation of production networks and the difficult separation of value added (Wiedmann, Wilting, Lenzen, Lutter, Palm, 2011). For example, intermediate goods shipped by a country abroad may return to it as re-imports of goods processed to a specific extent. In addition, some of the imports from the last supplier country may originate in third countries.

A simplified schema of an international input-output table (for three countries and one economic sector), presented in fig. 1, reflects the essence of such a table. Specific rows of the table provide information on the directions of export of goods and services produced in a country. At the same time, specific columns allow to determine the origin of goods and services absorbed in the production of a country (intermediate consumption) as well as for consumption (final demand). For example, the row for *Country 1* shows the share of the output of intermediates absorbed in the country and that exported to *Countries 2* and *3* as well as the share of the output of final goods consumed in the country and that exported to *Countries 2* and *3*. In addition, the table contains information on imports of intermediates/final goods from *Countries 2* and *3* absorbed in production/consumed in *Country 1*.

		Intermediate use			Final demand			Gross output
		Country 1	Country 2	Country 3	Country 1	Country 2	Country 3	
		Industry	Industry	Industry	Industry	Industry	Industry	
Country 1	Industry	intermediate use of domestic output	intermediate use by 2 of exports from 1	intermediate use by 3 of exports from 1	final use of domestic output	final use by 2 of exports from 1	final use by 3 of exports from 1	X <sub>1</sub>
Country 2	Industry	intermediate use by 1 of exports from 2	intermediate use of domestic output	intermediate use by 3 of exports from 2	final use by 1 of exports from 2	final use of domestic output	final use by 3 of exports from 2	X <sub>2</sub>
Country 3	Industry	intermediate use by 1 of exports from 3	intermediate use by 2 of exports from 3	intermediate use of domestic output	final use by 1 of exports from 3	final use by 2 of exports from 3	final use of domestic output	X <sub>3</sub>
Value added		V <sub>1</sub>	V <sub>2</sub>	V <sub>3</sub>				
Gross output		X <sub>1</sub>	X <sub>2</sub>	X <sub>3</sub>				

**Figure 1. International input-output table schema**

Source: Own study.

Two databases containing comprehensive world input-output tables were made available in 2012–2013. In May 2012, the implementation of the WIOD (*World Input-Output Database*) project was completed, resulting in the creation of a database containing, *inter alia*, a set of world input-output tables by industry of the economy (Timmer, Dietzenbacher, Los, Stehrer, de Vries, 2015). In January 2013, the Organisation for Economic Co-operation and Development together with the World Trade Organisation presented another database, *Trade in Value Added – TiVA*. The above-mentioned databases were further updated and modified. The WIOD made available in November 2016 (WIOD Release 2016) presented data for 43 countries (all the EU-28 and other major economies such as: the USA, Canada, Brazil, Mexico, China, India, Japan, South Korea, Switzerland, Norway, Australia, Taiwan, Turkey, Indonesia and Russia). The database contains data for 2000–2014 (15 years) for 56 industries by 56 industries. The most recent version of TiVA includes data for 63 countries and for 34 industries by 34 industries.

## 2. Method

This study was carried out with the use of data from the *World Input-Output Database* (WIOD Release 2016), containing world input-output tables for the years 2000–2014. On the basis of the above-mentioned tables, using the system of equations in the input-output (IO) model, appropriate calculations were made. The basic equation for a single economy with  $n$  sectors is as follows:

$$\mathbf{x} = \mathbf{Ax} + \mathbf{f} = \mathbf{Lf},$$

where:

$\mathbf{x}$  denotes the vector ( $n \times 1$ ) of gross output,

$\mathbf{A}$  denotes the matrix ( $n \times n$ ) of technical input-output coefficients (costs),

$\mathbf{f}$  denotes the vector ( $n \times 1$ ) of final output,

$\mathbf{L} = (\mathbf{I} - \mathbf{A})^{-1}$  denotes the matrix ( $n \times n$ ) of material-intensity (or additional demand) coefficients, also referred to as the Leontief inverse (and  $\mathbf{I}$  is a unit matrix).

In order to decompose exports of a country by origin of value added, the value added trade flow matrix  $\mathbf{T}$  for the world economy was used, in the following form (Stehrer, Foster, de Vries, 2012):

$$\mathbf{T} = \mathbf{vLe},$$

where:

$\mathbf{v}$  denotes the matrix ( $2464 \times 2464$ ) containing on the diagonal value added coefficients of individual countries and sectors,

$\mathbf{e}$  denotes the matrix ( $2464 \times 2464$ ) containing on the diagonal values of total exports of individual countries and sectors.

Assuming that the world economy consists of three countries and one sector, the above equation may be expressed as follows:

$$\mathbf{T} = \begin{bmatrix} v^1 l^{11} e^{1*} & v^1 l^{12} e^{2*} & v^1 l^{13} e^{3*} \\ v^2 l^{21} e^{1*} & v^2 l^{22} e^{2*} & v^2 l^{23} e^{3*} \\ v^3 l^{31} e^{1*} & v^3 l^{32} e^{2*} & v^3 l^{33} e^{3*} \end{bmatrix}$$

This matrix allows to assess both the origin of the value added contained in exports of each country (and industry) and the distribution of the value added across countries. In order to determine the composition of exports by country of the origin of value added, we need to look at the columns of the above matrix, whereas the directions of the distribution of value added in exports of countries of destination are shown in the rows. Exports are composed of domestic value added and foreign value added.

The first column of matrix  $\mathbf{T}$  includes elements describing the country of origin of the value added content of exports of country 1. For example,  $v^1 l^{11} e^{1*}$  denotes the value added created in country 1, subsequently exported by that country to foreign markets. In turn,  $v^2 l^{21} e^{1*}$  is the value added created in country 2 and contained in exports of country 1. A similar interpretation concerns  $v^3 l^{31} e^{1*}$ . The value of domestic content in exports of individual countries can be seen on the diagonal of matrix  $\mathbf{T}$  ( $v^1 l^{11} e^{1*}$ ,  $v^2 l^{22} e^{2*}$ ,  $v^3 l^{33} e^{3*}$ ). The sum of elements of each column is equal to gross exports of specific countries.

The first row of matrix  $\mathbf{T}$  (with the exception of  $v^1 l^{11} e^{1*}$ ) shows which part of the value added exported by country 1 is re-exported by country 2 ( $v^1 l^{12} e^{2*}$ ) and country 3 ( $v^1 l^{13} e^{3*}$ ). In the literature it is referred to as indirect value added exports. On a global scale, the sum of foreign content of exports of particular countries must be equal to the sum of the value added of particular countries in third countries' exports (i.e. to the sum of indirect value added exports).

For the world economy consisting of three countries and two sectors (subscripts indicate sectors), e.g. manufacturing and services, matrix  $\mathbf{T}$  will be as follows:

$$T = \begin{bmatrix} v_1^1 l_{11}^{11} e_1^{1*} & v_1^1 l_{12}^{11} e_2^{1*} & v_1^1 l_{11}^{12} e_1^{2*} & v_1^1 l_{12}^{12} e_2^{2*} & v_1^1 l_{11}^{13} e_1^{3*} & v_1^1 l_{12}^{13} e_2^{3*} \\ v_2^1 l_{21}^{11} e_1^{1*} & v_2^1 l_{22}^{11} e_2^{1*} & v_2^1 l_{21}^{12} e_1^{2*} & v_2^1 l_{22}^{12} e_2^{2*} & v_2^1 l_{21}^{13} e_1^{3*} & v_2^1 l_{22}^{13} e_2^{3*} \\ v_1^2 l_{11}^{21} e_1^{1*} & v_1^2 l_{12}^{21} e_2^{1*} & v_1^2 l_{11}^{22} e_1^{2*} & v_1^2 l_{12}^{22} e_2^{2*} & v_1^2 l_{11}^{23} e_1^{3*} & v_1^2 l_{12}^{23} e_2^{3*} \\ v_2^2 l_{21}^{21} e_1^{1*} & v_2^2 l_{22}^{21} e_2^{1*} & v_2^2 l_{21}^{22} e_1^{2*} & v_2^2 l_{22}^{22} e_2^{2*} & v_2^2 l_{21}^{23} e_1^{3*} & v_2^2 l_{22}^{23} e_2^{3*} \\ v_1^3 l_{11}^{31} e_1^{1*} & v_1^3 l_{12}^{31} e_2^{1*} & v_1^3 l_{11}^{32} e_1^{2*} & v_1^3 l_{12}^{32} e_2^{2*} & v_1^3 l_{11}^{33} e_1^{3*} & v_1^3 l_{12}^{33} e_2^{3*} \\ v_2^3 l_{21}^{31} e_1^{1*} & v_2^3 l_{22}^{31} e_2^{1*} & v_2^3 l_{21}^{32} e_1^{2*} & v_2^3 l_{22}^{32} e_2^{2*} & v_2^3 l_{21}^{33} e_1^{3*} & v_2^3 l_{22}^{33} e_2^{3*} \end{bmatrix}$$

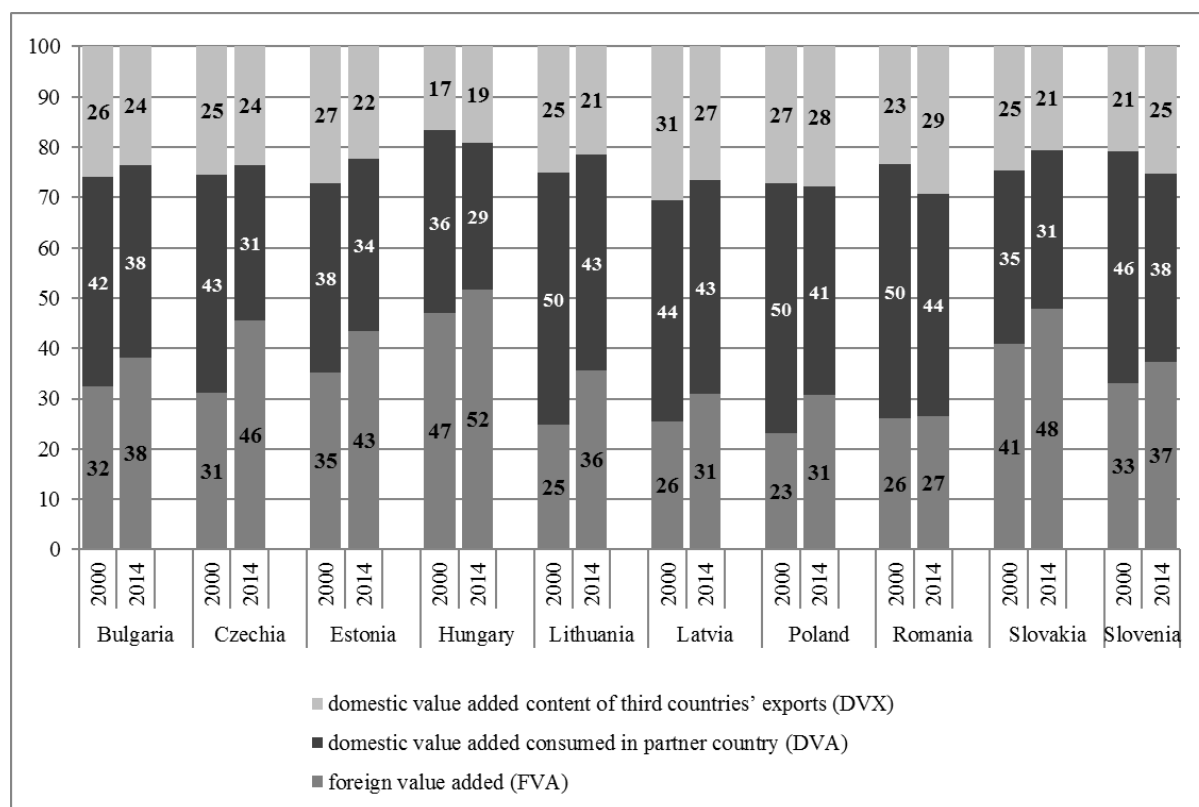
An analysis of columns of the above matrix allows to determine the composition by origin of the value added content of exports of individual countries by industry. For instance, the third column of the above matrix illustrates exports of industry 1 and country 2. Therefore, it is possible to indicate not only the part of those exports created in particular countries but also the specific industries where the creation took place. Taking into account the domestic value added content of exports of industry 1 and country 2, one can distinguish direct value added created in the industry producing exported goods (*direct domestic value added in exports*) and indirect value added generated in all industries rather than only in the industry producing exported goods (*indirect domestic value added in exports*). At the same time, an examination of rows of the above matrix allows to establish the directions of flows of value added created in the country and industry concerned.

### 3. Findings

#### 3.1. Decomposition of exports

In 2000–2014, all the CEECs experienced a rise in the share of the foreign value added content of their exports. It means that the value of exports of those countries increasingly included that of goods and services supplied from abroad and absorbed in export-oriented production. The steepest growth in the share of the foreign value added content of exports was observed in the Czech Republic (by 14.5 pps), in Lithuania (by 10.8 pps), in Estonia (by 8.1 pps) as well as in Poland and Slovakia (by about 7 pps). According to prior studies, Hungary and other Central European countries experienced a large increase in the share of foreign value added content of their exports in the late 1990s.

## Changes in exports of the Central and Eastern European countries



**Figure 2. Decomposition of the CEECs' gross exports by value added (in %)**

Source: Own calculations based on the WIOD Release 2016.

In 2014 value added created abroad accounted for as much as 52% of the value of Hungarian exports, for 48% of Slovakian exports and 46% of Czech exports. In Poland the respective share was slightly lower (31%). Therefore, with the exception of Poland, the greatest participation in global value chains characterised countries with relatively smaller economies. Exports of those countries were dominated by goods (accounting for over 80% in the Czech Republic and Slovakia). Their production processes are more likely to be fragmented into specific stages than the provision of services. In addition, from the 1990s the Central European countries (the Czech Republic, Poland, Slovakia and Hungary) had become destinations for FDI, primarily aimed at improving efficiency by minimising production costs (efficiency-seeking investment). It was primarily greenfield investment (rather than brownfield investment aimed at restructuring), mostly made by the EU Member States, consisting in the building 'from scratch' of a production plant in the host country (Ambroziak, 2012). The main destinations for foreign investment in the Central European countries were primarily labour-intensive manufacturing industries, e.g. the manufacture of transport equipment and of certain mechanical and electric machinery and equipment. The above-mentioned industries are characterised by a high share of the foreign value added content of exports, which translates into the overall share of value added in exports of those countries. Poland was also actively involved in the process of production fragmentation, but due to its larger economy (in comparison with the other countries in the region), thus a greater internal market and lesser importance of foreign trade to the economy, the significance of the foreign value added content of exports was lower than in the other Central European countries.

In 2014 the foreign value added content was the least important in Romania. 27% of the value of Romanian exports was generated abroad. As regards Lithuania and Latvia, the share of the foreign value added content of exports was higher and ranged from 31% to 36%. In Slovenia and Bulgaria, the share of foreign value added in their exports amounted to 37% and 38% respectively, while the respective share in Estonian exports amounted to 43%.

Despite an increased importance of the foreign value added content of all the CEECs' exports, the value added generated in those countries continued to dominate (except Hungary). Trade statistics



based on the world input-output tables allow to decompose domestic value added into value added contained in final goods, consumed or absorbed in the countries of destination and into value added contained in intermediates and services absorbed by other countries in output intended for export. The share of the latter category in gross exports of the CEECs reflects the strength of the links of those countries with foreign customers absorbing goods and services originating in the CEECs in their export-oriented production. In general, countries characterised by a high share of foreign value added in gross exports had weak links with foreign recipients of intermediate goods.

In 2000–2014 only four countries under analysis (Poland, Romania, Slovenia and Hungary) saw an increase in the share of the domestic value added content of third countries' exports in the value of gross exports. The most robust growth was recorded in non-Central European countries, i.e. in Romania (by 6 pps) and Slovenia (by 4 pps). In turn, the largest fall of respective shares was observed in Estonia (by 5 pps), Lithuania, Latvia and Slovakia (by 4 pps). In 2014 the strongest linkages with foreign recipients of intermediate goods and services characterised Romania, Poland and Latvia. The domestic value added content of other countries' exports accounted for nearly 30% of the value of gross exports of those CEECs. In Hungary that share slightly exceeded 19%, whereas in other countries it ranged from 21% to 25%.

At the same time, the most domestic value added consumed or absorbed in the countries of destination characterised Romanian exports (ca. 44%) as well as Lithuanian and Latvian exports (43%) and Polish exports (41%), whereas the lowest shares were recorded in three CEECs, i.e. the Czech Republic, Slovakia and Hungary (ca. 30%). As regards other CEECs, the respective share ranged from 34% to 38%. Therefore, the lesser the importance of the domestic value added content of exports consumed or absorbed in the countries of destination the higher the share of the CEECs' exports represented by intermediate goods. Thus, it reflected greater involvement of the countries in the processes of production fragmentation and their participation in global value chains.

### 3.2. Foreign value added by industry

The share of the foreign value added content of exports varied between industries (table 1). In 2011, the contribution of foreign value added was the highest in high technology and medium-high technology industries (e.g. the manufacture of computer, electronic and optical products, the manufacture of motor vehicles, the manufacture of electrical equipment). It was noticeable, especially, in the Central European countries, i.e. the Czech Republic, Hungary, Slovakia and, to a lesser extent, Poland as well. In 2014, about  $\frac{3}{4}$  of Slovakian and Hungarian exports of computer, electronic and optical products were manufactured abroad. The respective shares for the Czech Republic and Poland were 65% and 59%. A substantial proportion of foreign value added was noted in Hungarian and Slovakian exports of motor vehicles (nearly 70%). Those countries in particular specialised in import-intensive production of motor vehicles, mainly sold abroad. High shares of foreign value added in exports were also observed in manufacturing industries based on foreign supplies of raw materials (such as the manufacture of coke and refined petroleum products, the chemical industry).

**Table 1. Foreign value added by industry in 2014**

Industry	Bulgaria	Czechia	Estonia	Hungary	Lithuania	Latvia	Poland	Romania	Slovakia	Slovenia
Crop and animal production	2 5.3	2 8.8	3 0.5	2 8.8	3 5.1	4 4.3	2 2.9	1 6.6	2 5.6	2 7.5
Forestry and logging	2 4.0	1 9.1	2 7.2	2 1.7	3 0.0	2 4.8	1 3.2	1 3.9	9 .6	1 6.9
Fishing and aquaculture	3 2.2	4 8.1	2 7.0	2 1.8	1 8.4	3 1.3	2 6.0	7 .5	5 .0	2 5.3
Mining and quarrying	1 6.4	3 0.4	2 4.0	3 1.9	2 8.5	3 4.6	1 8.4	2 1.1	2 2.5	2 6.9

## Changes in exports of the Central and Eastern European countries

	2	2	3	3	3	3	2	1	3	3
Food products	7.1	9.5	8.1	7.4	3.6	7.3	5.9	6.8	3.3	1.2
Textiles, wearing apparel	3	4	4	5	2	3	3	2	4	4
	0.9	4.6	9.5	2.9	4.2	9.6	6.4	2.4	0.6	0.4
Wood and of products of wood	4	3	3	4	3	2	2	2	1	3
	1.4	1.9	5.3	4.8	7.2	8.5	5.2	2.4	7.9	7.7
Paper and paper products	5	4	4	5	3	5	3	3	3	4
	0.0	2.9	0.2	1.7	8.6	0.6	5.1	2.4	8.4	9.8
Printing and reproduction	3	3	4	3	3	4	2	1	3	2
	7.3	4.1	5.9	9.2	0.4	6.1	8.2	9.2	5.4	9.4
Coke and refined petroleum products	8	7	2	6	7	2	5	4	7	2
	3.7	0.3	8.2	9.9	5.1	8.4	3.5	9.3	9.1	8.3
Chemicals and chemical products	4	5	6	5	5	4	4	3	5	5
	6.4	0.6	6.6	9.2	9.3	2.2	2.1	6.0	4.3	0.8
Pharmaceutical products	4	3	5	3	7	1	2	2	3	1
	2.4	3.8	1.9	7.1	.8	5.7	2.1	0.3	3.0	7.6
Rubber and plastic products	5	4	5	5	4	5	3	3	4	4
	4.6	9.8	2.9	2.6	3.0	2.2	9.0	8.4	7.8	3.6
Other non-metallic mineral products	4	3	3	4	2	3	2	2	3	3
	5.4	5.1	9.7	5.0	9.0	4.6	7.8	5.4	5.4	6.0
Basic metals	6	5	6	6	4	6	4	3	5	5
	4.7	3.9	6.3	1.3	1.0	2.9	5.7	5.8	8.6	3.6
Fabricated metal products	4	4	5	4	3	4	3	3	3	3
	4.7	1.2	4.2	6.6	1.9	7.4	3.8	0.0	9.4	9.1
Computer, electronic and optical products	3	6	7	7	3	3	5	3	7	3
	9.5	4.9	8.5	2.4	0.4	9.4	8.9	1.1	7.3	9.5
Electrical equipment	5	5	5	5	4	4	4	3	6	4
	2.1	1.2	7.0	9.0	5.1	2.8	3.1	0.7	1.2	5.7
Machinery and equipment n.e.c.	4	4	5	4	3	4	3	2	4	4
	2.2	3.9	1.1	9.1	2.9	0.9	6.7	9.2	9.0	3.1
Motor vehicles	4	5	5	6	3	4	4	4	6	6
	1.1	6.8	6.0	9.7	2.0	2.1	6.9	3.5	7.0	0.6
Other transport equipment	5	4	4	5	2	4	3	2	5	3
	0.1	7.9	2.2	1.7	1.9	7.1	3.4	5.7	4.8	8.3
Furniture; other manufacturing	3	4	4	4	2	3	2	2	3	3
	9.1	0.5	4.0	6.5	6.6	3.9	9.2	6.4	6.2	4.4
Construction	3	2	3	3	1	3	2	2	2	3
	9.6	7.1	3.9	7.1	6.0	1.4	5.3	6.2	0.4	0.2
Wholesale, retail trade and repair of motor vehicles	1	3	2	2	1	1	8	1	2	2
	9.5	2.9	8.5	9.8	0.4	8.9	.7	5.3	0.9	1.7
Wholesale trade	2	2	2	2	7	1	1	2	1	1
	1.1	1.5	0.9	6.7	.7	6.2	4.1	0.4	9.8	8.2
Retail trade	1	1	1	1	6	1	1	2	1	1
	8.0	8.0	4.3	9.2	.2	0.2	0.7	1.2	3.9	2.7
Land transport	3	2	3	3	1	3	2	2	2	2
	6.4	4.8	3.6	2.6	6.7	0.6	3.2	7.3	1.9	6.0
Water transport	2	2	4	5	2	1	2	1	2	4
	3.6	3.3	5.4	4.0	4.6	1.6	3.1	7.5	1.0	8.9
Air transport	3	3	5	5	4	3	2	2	3	3
	8.8	3.2	0.4	0.5	5.6	9.6	2.2	1.8	1.3	7.8

	2	2	2	2	1	2	1	1	1	1
Warehousing	7.1	0.5	8.6	4.3	9.0	1.9	5.0	9.1	4.6	8.1
Postal and courier	2	1	2	1	8	1	1	1	1	1
activities	1.2	6.0	0.1	1.7	.1	5.9	1.5	2.7	0.4	0.9
Accommodation and	1	1	2	2	1	2	1	1	1	2
restaurants	8.1	9.3	2.5	5.6	4.0	0.5	4.8	4.8	7.7	1.0
Publishing activities	3	2	2	2	1	2	1	2	1	2
	0.6	3.2	3.0	2.9	3.2	3.7	6.4	2.0	5.8	0.0
Telecommunications	1	1	2	1	8	1	2	1	1	2
	3.4	9.6	3.2	8.0	.9	5.8	1.3	9.0	2.9	1.1
Information service	1	1	1	1	1	1	1	1	1	1
activities	1.7	3.6	3.0	7.3	6.9	1.9	5.9	6.4	4.8	4.5
Financial service	5	1	9	1	9	8	8	8	6	1
activities	.8	0.1	.1	2.7	.2	.3	.4	.0	.5	2.0
Insurance	7	2	1	1	1	1	1	1	1	1
	.8	0.7	4.1	4.4	1.7	4.3	8.6	2.4	2.1	1.2
Real estate activities	7	1	9	1	1	9	1	4	8	5
	.8	6.1	.6	0.3	3.3	.2	0.9	.8	.2	.5
Legal and accounting	1	1	1	1	1	1	1	1	1	1
activities	7.3	9.7	4.3	7.2	0.2	2.3	0.0	3.3	1.9	3.2
Architectural and	2	2	1	1	6	1	1	1	1	2
engineering activities	2.1	3.1	9.3	9.1	.9	4.6	4.6	7.5	8.0	7.1
Scientific research and	9	1	1	2	1	6	1	1	1	1
development	.9	8.6	1.6	2.2	3.9	.1	5.1	4.1	9.4	2.5
Advertising and market	2	2	2	1	6	2	9	1	1	2
research	0.3	7.1	7.3	8.6	.5	2.5	.2	6.5	5.1	3.1
Public administration	9	9	1	1	9	1	6	6	1	1
and defence	.1	.4	2.4	1.0	.9	0.5	.5	.3	0.5	0.7

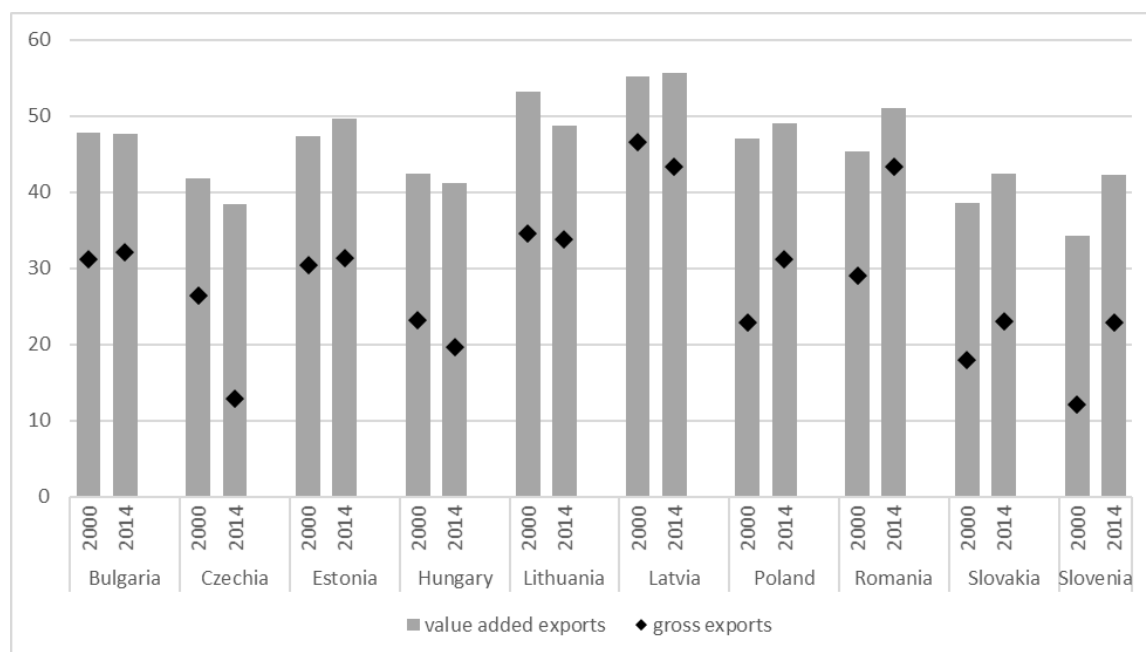
Source: Own calculations based on the WIOD Release 2016.

A low share of domestic value added in services resulted from the fact that, in contrast to goods, services are subject to fragmentation to a limited extent. Relatively little importance of the foreign value added content of exports also characterised agriculture, forestry and fisheries, mining and quarrying as well as material-intensive industries based on national supplies of raw materials for manufacturing (e.g. the food industry, the manufacture of wood and wood products, the manufacture of paper and paperboard).

In general, the more complex a product is, the higher the number of possible production stages, frequently located in various countries. The finished product received by the end user contains value added generated in many countries. The country manufacturing the finished product tends to supply a relatively low value added content.

### 3.3. Share of services

International trade statistics in value added terms allow to assess the actual importance of services in exports of individual countries. Such statistics include the value of services contained in exported manufactures (e.g. design services, transport, trade in intermediates). Traditional statistics based on balances of payments recorded the value of such services as goods, which led to understated importance of services in exports (Miroudot, Cadestin, 2017).



**Figure 3. Share of services in the CEECs' exports in gross and value added terms**

Source: Own calculations based on the WIOD Release 2016.

In all the Central and Eastern European countries covered, the share of services in exports measured by statistics in value added terms was distinctly higher than that in exports measured according to traditional statistics. In 2000–2014, the gap widened in four countries, to the greatest extent in the Czech Republic – by 10 pps. In 2014, the most significant differences in the proportion of services in exports measured by traditional and value added statistics concerned the Czech Republic. The share of services in value added terms was more than 25 pps higher than that in gross terms. The respective gap was nearly 22 pps in Hungary and ca. 20 pps in Slovakia and Slovenia. The least difference in the importance of services as measured according to the two approaches was found in Romanian exports. The share of services in value added terms was almost 8 pps higher than that in gross terms. The gap did not exceed 15 pps in Latvia and Lithuania.

In 2014, services played the greatest role in Latvian exports. The share of services in exports in value added terms was nearly 56%. Services also accounted for around half of exports in Romania, Estonia, Poland and Lithuania. The least importance of services characterised exports of the Czech Republic (38%) and Hungary, Slovakia and Slovenia (slightly over 40%). Therefore, exports of countries actively participating in global value chains had the lowest content of services. Furthermore, such services mostly originated from foreign countries (Olczyk, Kordalska, 2017). It is emphasised in the literature that manufacturing plays an important carrier function for services (Stöllinger et al. 2013). In their substance, services are involved in trade to a much lesser degree than goods – the former are less tradable than the latter. The above concerns, in particular, services such as repairs, wholesale and retail trade, real estate activities and business services. At the same time, they may be contained in exported goods. Therefore, a strong manufacturing sector contributes to the inclusion of services in trade. The important thing is, however, that the services involved should be domestic rather than foreign.

#### 4. Conclusion, limitation and further research

The decomposition of gross exports of the CEECs into domestic and foreign value added by using the world input-output tables allowed to better explain developments in the foreign trade of the countries in question over roughly two decades. It follows from the analysis conducted that the CEECs were engaged in the production fragmentation processes to a varying degree, thus the structure of exports of those countries evolved in different directions. The greatest changes in the composition of exports by origin of value added were observed in the Central European countries. Since the 1990s they had been destinations for foreign direct investment, mostly in high technology and mid-high technology

industries. The foreign input in exports of products of these industries was large. It concerns especially manufacture of computer, electrical and optical products, manufacture of motor vehicles and manufacture of electrical equipment.

Although statistics in value added terms have many merits the world input-output tables also involve a number of shortcomings. Firstly, despite the ongoing work on updating the database, the most recent data available are those for 2014. Secondly, it covers 56 economic sectors, including 19 manufacturing industries. It limits the level of detail in trade analyses conducted. Thirdly, the construction of a world input-output table required the adoption of a number of assumptions and the application of many additional estimates, e.g. of differences between the values of exports expressed in FOB prices and those of imports at CIF prices.

Nevertheless, at present statistics in value added terms are the best available tool facilitating studies of changes in trade by value added content. It follows from the analysis conducted and the overview of the literature that further research is needed in this regard. There are at least two potential directions of future investigations. Firstly, it seems important to analyse benefits derived from participation in global value chains and, in that context, also to examine possible ways of advancing the CEECs in those chains (Ferrantino, Taglioni, 2014; Stöllinger, 2017). Secondly, another vital issue – from the point of view of international trade benefits – is the servicisation of the CEECs' economies through increasing the role of services in the production process (Miroudot, Cadestin, 2017).

## 5. References

- Ambroziak, Ł. (2012). FDI and intra-industry trade: theory and empirical evidence from the Visegrad Countries. *International Journal of Economics and Business Research* 4(1-2), pp. 180-198.
- Ambroziak, Ł. (2017). Pozycja konkurencyjna nowych państw członkowskich UE w handlu towarami zaawansowanymi technologicznie. *Ekonomista* 5, s. 506-526.
- Ambroziak, Ł. (2018). The CEECs in global value chains: The role of Germany. *Acta Oeconomica* 68(1), pp. 1-29.
- Cieślak, E., Biegańska, J., Środa-Murawska, S. (2016). The Intensification of Foreign Trade in Post-Socialist Countries and Their Role in Global Value Chains. *Acta Oeconomica* 66(3), pp. 465-487.
- Ferrantino, M.J., Taglioni, D. (2014). Global Value Chains in the Current Trade Slowdown. *World Bank - Economic Premise*, 138, pp. 1-6.
- Grodzicki, M. J. (2014). Global Value Chain and Competitiveness of V4 Economies. W: D. Kiendl-Wendner, K. Wach (eds.), *International Competitiveness in Visegrad Countries: Macro and Micro Perspectives* (pp. 13-31). Graz: Fachhochschule Joanneum.
- Hagemejer, J., Ghodsi, M. (2017). Up or Down the Value Chain? A Comparative Analysis of the GVC Position of the Economies of the New EU Member States. *Central European Economic Journal*, 1, pp. 1-18.
- Leontief, W. (1986). *Input-Output Economics*. New York: Oxford University Press,.
- Miroudot, S., Cadestin, C. (2017). Services In Global Value Chains: From Inputs to Value-Creating Activities. *OECD Trade Policy Papers*, 197.
- OECD (2013). *Interconnected Economies: Benefiting from Global Value Chains*. Paris: OECD Publishing.
- Olczyk, M., Kordalska, A. (2017). Gross Exports Versus Value-Added Exports: Determinants and Policy Implications for Manufacturing Sectors in Selected CEE Countries. *Eastern European Economics*, 55(1), pp. 91-109.
- Stehrer R., Foster N., de Vries G. (2012), *Value added and Factors in Trade: A comprehensive approach*, wiiw Working Paper, no 80.
- Stöllinger, R. (2017). Global Value Chains and Structural Upgrading. *wiiw Working Papers*, 138.
- Stöllinger, R. (ed.). (2013). A 'Manufacturing Imperative' in the EU – Europe's Position in Global Manufacturing and the Role of Industrial Policy. *wiiw Research Reports*, 391.

Timmer, M.P., Dietzenbacher, E., Los, B., Stehrer, R., de Vries, G. (2015). An Illustrated User Guide to the World Input–Output Database: the Case of Global Automotive Production. *Review of International Economics* 23(3), pp. 575-605.

UNCTAD (2013). *World Investment Report*. New York and Geneva: UNCTAD.

Wiedmann, T., Wilting, H.C., Lenzen, M., Lutter, S., Palm, V. (2011). Quo Vadis MRIO? Methodological, Data and Institutional Requirements for Multi-Region Input-Output Analysis. *Ecological Economics*, vol. 70, Issue 11, pp. 1937-1945.



# The Tax Policy Of Direct Business Taxes In The EU

Thomas Chatzigagios, Vasileios Pontios

## 1. Introduction

The existing institutional framework for business taxation in the European Union remains in place highly fragmented, as tax laws and tax procedures differ significantly in the 28 Member States. This differentiation, apart from the nominal tax benchmarks, introduces institutional uncertainty, ambiguity and often opacity in the tax system framework faced by companies operating as groups in more than one Member State, especially when companies are of a smaller size.

Tax competition is a phenomenon, which constantly raises the keen interest of governments not only in the European Union, but also globally. EU tax policy ensure, that there is no distortion of competition between Member States in the internal market, differences in tax rates and taxation systems at the level of direct taxation. Although, the introduction of tax policy, for direct taxation of the Member States, is their exclusive competence, there is the phenomenon of the heterogeneity between these policies. Both the tax rates of direct business taxation and the efficiency of the administration, in terms of their recoverability, differ considerably between Member States.

Analyzing cases in EU countries where corporate tax rates are higher than the Union average, one would expect the collection rate of direct taxes to be in line with the level of tax rates. However, it is a fact that collectability is also affected by external factors such as tax evasion, tax administration inefficiency, the black economy, corruption and bureaucracy. These are some of the reasons why the collection of direct taxes lags behind in some Member States over others.

## 2. Tax Competition

The phenomenon of tax competition began with the emergence of globalization and made its presence stronger since the early 1990s. The main method used by States to create tax competition vis-à-vis other countries is the favorable tax treatment of high-output production factors (Barbas 2009).

Certain economic policies, like customs, foreign affairs, regional development are handled at supranational level within the European Union. However, to build a stronger economic integration the alignment of further legislations (e.g. on the field of business taxation) governed by the Member States is a must. France and Germany, as two leading economies of the European Union both urge common corporate and financial transaction taxes and besides supra-national level, they harmonize their domestic business tax systems also on a bilateral basis (Danko, 2012). But despite a long history of reports and initiatives on the harmonization of corporate income taxes within the European Union, the EU countries still operate their own national corporate income taxes, with only limited co-ordination between them. However, the increasing integration of economic activity is placing greater pressures on these corporate income taxes, as the companies whose profits are being taxed operate increasingly across national borders, both within Europe and beyond. Tax differentials may also be assuming greater importance in company decision-making, as other differences between countries within the EU diminish — a trend highlighted by the adoption of a single currency within the Euro zone (Bond et al., 2000).

Tax legislation is mainly decided by each country of the EU at national level. The European Commission can present proposals for tax legislation where it considers EU-wide action is needed for the internal market to work properly. It can also make recommendations and issue policy guidance in specific areas. The European Commission makes sure in all cases that:

- action at EU level would achieve a better result than if EU countries acted alone (the ‘subsidiarity’ principle); and
- the initiative proposed does not go beyond what is necessary to address the problem identified (the ‘proportionality’ principle).

Any European Union tax legislation must be unanimously agreed by all EU countries before entering into force. This makes sure that the interests of every single EU country are taken into account



(European commission, 2015). The EU countries decide on their own tax rules. However, there are certain areas in company taxation which require an EU approach in order to remove obstacles to the internal market, to ensure fair tax competition and to tackle common challenges, such as corporate tax avoidance.

An important focus of EU legislation on company tax is to eliminate double taxation i.e. where a company is taxed twice (or more) on the same income by different EU countries. Here are some examples.

- The interest and royalties directive eliminates withholding taxes on cross-border interest and royalty payments between associated companies that are resident in two different EU countries.
- The parent and subsidiary directive prevents double taxation of the parent company on the profits of its subsidiary located in another EU country.
- The merger directive simplifies taxation of activities aimed at restructuring companies situated in two or more EU countries.
- The EU Arbitration Convention establishes a procedure to resolve disputes where double taxation occurs between enterprises of different EU countries.

### **3. Business Taxation Directives**

In October 2016 the European Commission was re-examined for discussion in the Council of the European Union a new revised proposal for the Common Undertaking for Business Tax Base (CCCTB), according to which, in principle, corporate profits are calculated in the same way in all Member States. Its aim is to gradually harmonize the European tax environment so that to reduce some of the current differences in the determination of tax profits between EU Member States.

In the second stage, a separate Directive will be promoted which will allow the consolidation of taxable profits, groups with activity in more countries in the Union, and will harmonize some key processes through one-stop shops. Until implementation of this second phase will remain a number of technical issues, especially for large groups, as it will survive within the of the Union the need to apply rules to tackle tax evasion and avoidance, and which in some cases diverge from what has been agreed at OECD level. Also, the Directive provides for the introduction of rules for tackling the discriminatory treatment of borrowing costs for using equity, which does not take into account its impact economic cycle and economic crises. At these points the Guidelines need improvement before adopting them.

Overall, however, the fact that the European Commission takes the initiative to lay down common rules for identification of "business profits" in all Member States, is an important opportunity for the European Union that should not get lost. It is an important European reform aimed at simplifying the rules governing taxation businesses and can make a decisive contribution to attracting investment where the European Union is constantly losing ground against the rest of the world.

Till now in the field of business taxation three directives have been adopted:

The first one ensures cross-border dividend payments between companies of the same group which are established in different countries are not subject to double taxation. This directive includes the updating of the list of companies concerned by Directive, the relaxation of the conditions for the exemption of dividends from tax deductions and the limitation of double taxation subsidiaries.

The second directive aims to remove tax barriers to cross-border corporate reorganisations such as mergers, transfers, transfers of assets and exchanges of shares. There is a specific list of legal forms for which this form applies directive. In the case of mergers and divisions one the transferring company transfers assets or liabilities to another or other companies. The Merger Directive provides for the postponement of the merger taxes that could be charged to the difference in their actual value transferable assets and their value for tax purposes

The third directive is referring on the interest and royalty taxation. Predict the abolition of double taxation of interest and royalties paid between affiliated companies established in different EU countries exempting companies from taxation in the State of withholding tax.

In this way the EU's tax policy ensures that there is no distortion of competition between Member States in the internal market, differences in tax rates and taxation systems at the level of direct taxation. However, both the tax rates, ie the tax amount attributable to each unit of tax base of direct

business taxation and the efficiency of the administration, in terms of their recoverability, differ significantly between the EU countries.

#### 4. Data collection and analysis

All the above is confirmed by the large fluctuation of tax rates between the taxpayers, since corporate tax rates range from 10% to 38%, in 2015, and there is a similar fluctuation in the taxation of dividends. It is worth noting that the average corporate tax rate in EU-28 is 22.8%.

**Table 1.** Top statutory corporate income tax rates (including surcharges), 1996–2015 Eurostat.

EU Member	1996	1997	1998	1999	2000	2001	2002	2003	2004
Belgium	40.2	40.2	40.2	40.2	40.2	40.2	40.2	34.0	34.0
Bulgaria	40.0	40.2	37.0	34.3	32.5	28.0	23.5	23.5	19.5
Czech Republic	39.0	39.0	35.0	35.0	31.0	31.0	31.0	31.0	28.0
Denmark	34.0	34.0	34.0	32.0	32.0	30.0	30.0	30.0	30.0
Germany	56.7	56.7	56.0	51.6	51.6	38.3	38.3	39.6	38.3
Estonia	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0	26.0
Ireland	38.0	36.0	32.0	28.0	24.0	20.0	16.0	12.5	12.5
Greece	40.0	40.0	40.0	40.0	40.0	37.5	35.0	35.0	35.0
Spain	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
France	36.7	41.7	40.0	37.8	36.4	35.4	35.4	35.4	35.4
Croatia	25.0	35.0	35.0	35.0	35.0	20.0	20.0	20.0	20.0
Italy	53.2	53.2	41.3	41.3	41.3	40.3	40.3	38.3	37.3
Cyprus	25.0	25.0	25.0	25.0	29.0	28.0	28.0	10.0	10.0
Latvia	25.0	25.0	25.0	25.0	25.0	25.0	22.0	19.0	15.0
Lithuania	29.0	29.0	29.0	29.0	24.0	24.0	15.0	15.0	15.0
Luxembourg	40.9	39.3	37.5	37.5	37.5	37.5	30.4	30.4	30.4
Hungary	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6	17.6
Malta	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0	35.0
Netherlands	35.0	35.0	35.0	35.0	35.0	35.0	34.5	34.5	34.5
Austria	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0	34.0
Poland	40.0	38.0	36.0	34.0	30.0	28.0	28.0	27.0	19.0
Portugal	39.6	39.6	37.4	37.4	35.2	35.2	33.0	33.0	27.5
Romania	38.0	38.0	38.0	38.0	25.0	25.0	25.0	25.0	25.0
Slovenia	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0	25.0
Slovakia	40.0	40.0	40.0	40.0	29.0	29.0	25.0	25.0	19.0
Finland	28.0	28.0	28.0	28.0	29.0	29.0	29.0	29.0	29.0
Sweden	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
United Kingdom	33.0	31.0	31.0	30.0	30.0	30.0	30.0	30.0	30.0
Iceland	33.0	33.0	33.0	30.0	30.0	30.0	18.0	18.0	18.0
Norway	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0	28.0
Simple averages									
EU-28	35.0	35.2	34.2	33.5	32.0	30.4	29.0	27.8	26.6
EA-19	35.9	36.0	34.9	34.4	33.3	32.1	30.4	28.7	27.8

From the table above someone can see that this is not a phenomenon of the recent years. Below we examine the maximum and minimum corporate income tax rates every five years.

- In 1996, Hungary had the lowest corporate income tax rate (19.6%) while Germany had the highest one (56.7%).

- In 2001, Hungary had the lowest corporate income tax rate (19.6%) while Italy had the highest one (40.3%).

- In 2006, Bulgaria had the lowest corporate income tax rate (10.0%), while Germany had the highest one (38.7%).

- In 2011 Bulgaria had the lowest corporate income tax rate (10.0%), while France had the highest one (36.1%).

In addition, it appears that corporate income tax rates not only don't have a homogeneity over the years between countries but also change significantly in the same countries. It is worth noting the examples of Germany where the corporate income tax rate between the years 1996 and 2015 ranges from 56.7% to 30.2%, Italy where the corporate income tax rate between fluctuates between 53.2% to 31.4% and Bulgaria where it is dropping from 40% to 10%.

But there are also countries that have held fixed or almost constant corporate income tax rates over the last 20 years. Hungary is one of these countries since the corporate income tax rate has increased from 19.6% in 1996 to 20.6% in 2015 while in Malta it remains stable at 35% over the entire period from 1996 to 2015. Generally we can notice that there is a steady drop in the tax rates, and this also results from the average of both EU-28 and EA-19.

Taxes are important to the proper functioning of an economy. They are the main source of federal, state and local government revenues used to fund health care, education, public transport, unemployment benefits and pensions, among others.

Analyzing cases in EU countries where corporate tax rates are higher than the Union average, one would expect the collection rate of direct taxes to be in line with the level of tax rates. However, it is a fact that collectability is also affected by external factors such as tax evasion, tax administration inefficiency, the black economy, corruption and bureaucracy. These are some of the reasons why the collection of direct taxes lags behind in some Member States over others. On the whole, Governments should take into account that tax policy has an impact on corporate behavior and thus they should find the best mix between direct and indirect taxes in order to assure a high collection of the income sources (Cozmei, 2015).

While the size of the tax cost imposed on businesses has implications for their ability to invest and grow, the efficiency of the tax administration system is also critical for businesses. A low cost of tax compliance and efficient tax-related procedures are advantageous for firms. Overly complicated tax systems are associated with high levels of tax evasion, large informal sectors, more corruption and less investment. Tax compliance systems should be designed so as not to discourage businesses from participating in the formal economy (Bourke et al., 2016).

Modern tax systems seek to optimize tax collections while minimizing administrative and taxpayer compliance costs. The most cost-effective tax collection systems are those that encourage the vast majority of taxpayers to meet their tax obligations voluntarily, thereby allowing tax officials to concentrate their efforts on non-compliant taxpayers and other services provided by tax administrations. Taxpayers are more likely to comply voluntarily when a tax administration has established a transparent system that is regarded by taxpayers as being honest and fair (Bourke et al., 2016).

It is well known that fiscal incomes adopted by states tend to converge in developed countries, to a greater application of direct taxes to indirect ones, as opposed to developing ones, where indirect taxes are a major source of revenue, from taxation to the country. The reasons for direct taxes in a developed economy compared to indirect taxes are that:

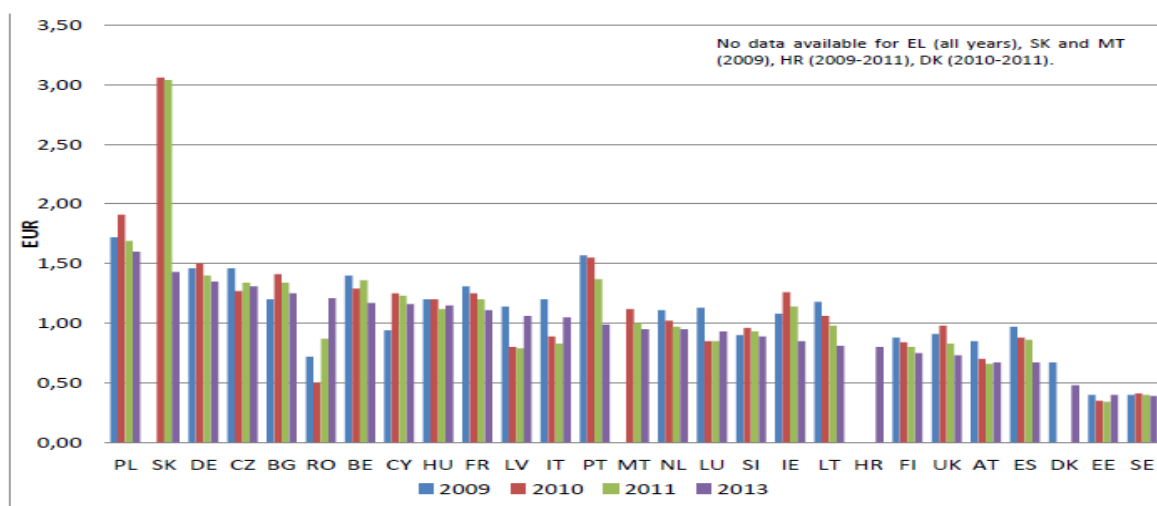
- Income is high and therefore the ability to pay more
- Tax services are more organized
- Business units are better organized
- Taxpayers tend to have less tax evasion

Instead, in the less developed countries, the above reasons work contrary, and so the economies concerned resort to and rely more on indirect taxation.

At the same time, however, an important role is played by the cost of administering the tax authorities for the collection of taxes. This is also confirmed by the European Commission's investigation in which we can see that the ratio of administrative costs and revenues collected can be considered as a proxy indicator of how efficient a tax authority is. Almost all Member States' tax authorities calculate and publish this ratio in their annual reports. On the basis of the latest data, the cost of running most EU tax authorities lies in between 40 cents and 3.00 euro for every 100.00 euro of taxes collected (European commission, 2016). The highest administrative cost of the tax authorities in 2013 is detected in Poland (over 1,5 euro for every 100.00 of taxes collected) while the lowest one is detected in Sweden lower than 50 cents.

It is noteworthy that countries with a low corporate income tax rate have high operating costs. In particular, we see that countries such as Bulgaria, Cyprus and Poland, which have corporate income tax rates lower than 20%, have administrative costs in excess of 1.00 euro per every 100.00 euro of taxes collected, while countries with high corporate income tax rates such as France or Germany (tax rate over 30%), have almost the same administrative costs with the countries we tested before.

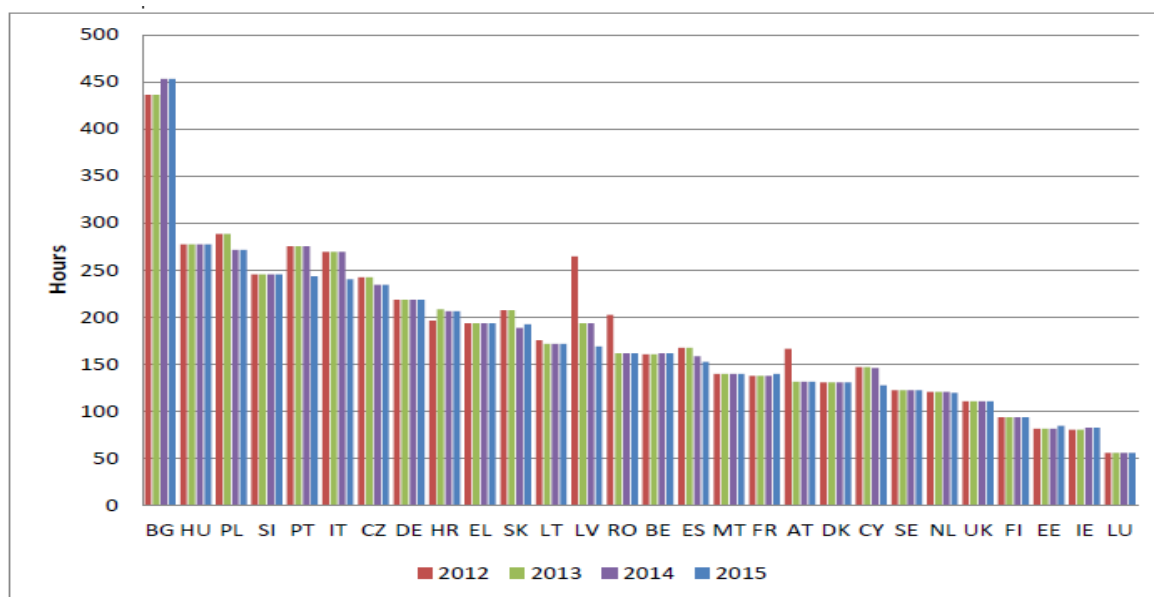
**Figure 1.** Administrative costs of the tax authorities per 100.00 euro of taxes collected, 2009-2013.



Compliance costs mostly relate to time spent rather than direct costs, such as those associated with bookkeeping. The graph below shows the number of hours needed comply with taxes per year for a medium-sized company. Time spent include hours needed to deal with the corporate income tax, value added tax and taxes on employees, including taxes on wages and social contributions. The time needed to comply with taxes for medium-sized company can serve as a good proxy of how high tax compliance costs are in a country (European commission, 2016).

As we can see the yearly hours spent from a medium-sized company so as to deal with its taxes obligations fluctuating from 65 to more than 450. It is interesting to observe that countries with a low corporate income tax rate need more hours to confront their tax obligations than other countries with higher tax rates. For example a medium-sized company in Bulgaria needs more than 450 hours for tax cases while a medium-sized company in Luxembourg needs less than 60 hours per year. From the figure below we can see that the average yearly hours that needs a medium-sized company to deals with its tax obligations is about 180.

**Figure 2.** Number of hours needed to comply with taxes per year for a medium-sized company, 2012-2015



## 5. Conclusion

The first recommendations for the corporate income tax harmonization were already issued in 1962 by the Neumark Report. This included several recommendations also for the harmonization process in the field of corporate taxation. Together with the Tempel Report issued in 1970, they proposed a number of initiatives designed to achieve a limited degree of harmonization of the corporate tax system, base and also rates (Danko, 2012). But the economic growth and harmonization is not exclusively dependent on the of tax rates (Myles, 2000).

Despite the fact that the tax collectability is increased by the increase in tax rates (Gale, 2016) and that tax revenues from enterprises are particularly sensitive to changes in GDP, it is also a result of the general economic policy, the controls of the financial authorities and the tax culture of the Member States. Each EU member takes into account different criteria so as to legislate its tax policy. The legislative authorities count their own needs and, in conjunction with administrative costs, taxpayers' compliance and the directives which are set by the European Union they decide for their fiscal policy. The economic but especially the tax environment of each country is changing rapidly and the tax policies should prevent it.

The tax laws of one country should not allow people and businesses to escape taxation in another. Given the cross-border nature of tax evasion and avoidance, EU-wide action is essential. In recent years, substantial progress has been made. The EU now has an action plan and several initiatives in place or under development – such as rules on information exchange between EU countries and a quick reaction mechanism to combat VAT fraud. The EU also pays particular attention to fair company taxation. Loopholes between different countries' tax systems allow certain companies to engage in 'aggressive tax planning', to minimise their tax bills. Close coordination and information sharing between tax administrations aims to prevent this. EU governments should also ensure their corporate tax regimes are open and fair, and not designed in a way which might unfairly lure firms away from other EU countries, or otherwise erode the tax base there. To this end, they have signed up to a code of conduct pledging not to do this.

## 6. References

- Barbas, N. (2009). Tax competition as a consequence of economic globalization. *Business and corporate law*, 12-22
- Bond S., Chennells L., Devereux M.P., Gammie M., Troup E. (2000). *Corporate Tax Harmonisation in Europe: A Guide to the Debate*, London: The Institute for Fiscal Studies.
- Bourke E., Nasr J., Novik N., Sarmiento de Beires R (2016). Paying taxes, Assessing postfiling processes. *Doing Business 2017 Equal Opportunity for all* (pp. 72-78). Retrieved from WorldBank database.

Cozmei C. (2015). Is It any EU Corporate Income Tax Rate-Revenue Paradox? *In 2nd Global conference on business, economics, management and tourism, Prague, Czech Republic, 30 -31* (pp. 818-827).

Danko Z. (2012). Corporate tax harmonization in the European Union, Paper presented at the *Crisis Aftermath: Economic policy changes in the EU and its Member States, Conference Proceedings*, Szeged.

European Commission (2015), Taxation, Promoting the internal market and economic growth, 1-12, doi:10.2775/150928

European Commission (2016), Tax Policies in the European Union, 1-76, doi: 10.2778/676768

European Union, *Taxation*, Retrieved from [https://europa.eu/european-union/topics/taxation\\_en](https://europa.eu/european-union/topics/taxation_en)

Eurostat (2015), Taxation trends In the European Union, Data for the EU Member States, Iceland and Norway, 1-154, doi: 10.2785/298426

Gale W., Samwick A. (2016). Effects of Income Tax Changes on Economic Growth. *The Brookings Institution*, 1-46.

Myles G. (2000). Taxation and Economic Growth, *Fiscal Studies*, 21 (1), 141-168.



# **The Relationship Between Foreign Direct Investment, Export And Economic Growth From Turkey's Perspective**

E.Yasemin Bozdaglioglu, Mesut cakir

Foreign direct investment flow into a country creates different effects on that country's exports and economic growth. First of all, entrance of multinational companies into a country increases that country's exports. It is well-known in the literature that foreign direct investment and exports support economic growth. However, it is hard to tell that the relationship between foreign direct investment, exports and economic growth is clear. An export-oriented growth strategy was adopted in Turkey in the 1980s. With the liberalization that was brought by this strategy, important steps to attract foreign investments have been taken. This study is aim to investigate the causal relationship between Foreign Direct Investment (FDI), exports and economic growth for Turkey over the period 1987-2016. With the idea in mind that there is a long-term relationship between foreign direct investment, exports and economic growth, whether foreign direct investment and exports are the determinants of economic growth will be tested. The Granger Causality methodology will be used in determining the direction of this relation. Additionally, the Johansen Cointegration will be used to test whether or not there is a long-term relationship among the variables.

## **1.Introduction**

The effects of foreign direct investment on economic growth are a subject that is frequently discussed in the literature. The main purpose of this study is to examine the relationship between exports, foreign direct investment (FDI) and economic growth in Turkey. It is thought that there is a long-term relationship between these variables. Foreign direct investment and exports are considered as determinants of economic growth. The increase in the export and the openness of the economy can lead to an increase in economic growth together with the output level of the country. Foreign direct investment offers many advantages to the host country and provides new technologies, production processes and transfer of know-how. Despite these known advantages, foreign direct investment and the effects on the host country are being discussed in various ways. There are arguments that argue that foreign direct investments have positive effects on the economy, as well as those who argue the opposite.

For countries which needs more resources to grow and for fast-growing countries such as Turkey foreign trade and export are especially important. Foreign direct investment has the ability to directly affect the export capacity of the host country. Foreign companies have a financially stronger structure and focus more on exports compared to larger sized and domestic firms. The impact of foreign direct investments on the export performance of the host country takes place in two ways. The first emerges when multinational corporations in the country strengthen the direct export performance of the host country.

The branches of multinational corporations benefit from the factor endowments that the host country has such as relatively more resources and cheap labor needed for low costs. This plays an important role for competitive advantage of multinational corporations in world markets. Thus the exports of the host country also expands through the branches of multinational corporations. The second effect arises through foreign direct investments indirectly triggering local companies' exporting tendency (Bozdağlıoğlu ve Özpınar, 2011:12).

Foreign direct investments help capital inflow to industries with international competitive power. At the same time, the global connections of multinational corporations facilitate these companies' access to foreign markets. In addition to exports that foreign firms perform foreign direct investment can encourage exports through teaching appropriate marketing methods and creating new channels of distribution. The purpose of this study is to determine whether this causal relationship is valid for



Turkey. Thus, the importance of making Turkey more competitive investment environment will be better understood for those who are in the policy-making process

## 2. Relationship between Foreign Direct Investment, Economic Growth and Export: Theory and Literature Review

There are many studies examining the effects of FDI on economic growth and exports, and the relationship of these variables with each other. These effects are discussed in the literature with different approaches. The results obtained from these studies show differences depending on the selected period, the data processed, other variables in the model, and the econometric methods used. Regression analysis, panel data analysis, VAR autoregressive model and ARDL (Autogressive Distributed Lag) methods are used to investigate the relationship between these variables. The results of selected related studies are mentioned below.

**Table 1. Literature Review**

Authors	Sampling	Method	Results
Dritsaki, M., Dritsaki, A. and Adamopoulos, A. (2004)	1960-2002 (annual data), Greece.	Granger Causality, VAR	FDI↔GDP FDI→GDP and FDI→Export
Yao, S. (2006)	1978-2000 (annual data), 28 Chinese provinces.	Pedroni's panel unit root test and Arellano and Bond's dynamic panel data estimating technique	Exports and FDI have a strong and positive effect on economic growth.
Liu, X., Shu, C. and Sinclair, P. (2009)	1970-2002 (annual data), 9 Asian Economies.	Multivariate Causality Test, VECM (Vector Error Correction)	There is a unidirectional causal link running from outward M&As (Merger and acquisitions) to growth and trade.
Acaravcı, A. and Ozturk, İ. (2012)	1994-2008 (quarterly data), 10 Transition European Countries	Granger Causality Test, ARDL Bound Test	They found that there are causal relationships among variables in four of the ten countries
Haseeb, M. et al.(2014)	1971-2013 (annual data), Malaysia.	ARDL Bound Test	Exports having a positive impact on the economic growth and FDI of the country.
Szkorupova, Z. (2014)	2001-2010 (quarterly data), Slovakia.	Cointegration and Vector Error Correction	Positive long- term relationship between variables.
Istaiteyeh, R.M.S. and Ismail, M.T. (2015)	2003-2013 (quarterly data), Jordan	Cointegration and Vector Error Correction	Negative relationship with GDP and FDI. Positive relationship with GDP and Export

Tapşın, G. (2016)	1974-2011 (annual data), Turkey	Toda and Yamamoto's Causality Test	GDP→ FDI FDI→Export GDP→Export
Mahadika, I.N., Kalaycı, S. and Altun, N. (2017)	1981-2013 (annual data), Indonesia.	Multivariate Regression Model, VAR	They found a long-term relationship between the variables.
Sunde, T. (2017)	1990-2014 (annual data), South Africa.	VECM Granger Causality, ARDL.	FDI→GDP FDI→Export GDP↔ Export

The causality relationship between foreign direct investments and exports can be uni-directional or bi-directional. When evaluated for export, companies firstly start to trade in foreign markets and may decide to open branches in the host country after having more information about the economic, social and political conditions of trading partners. Another way is to choose a joint investment path with local companies. This means foreign direct investment into the country. After a certain time, multi-national corporations can take the decision to start exporting. The role of multinational corporations in increasing their exports in the host country is the additional capital they will bring with them to the country, new technology and better management and marketing strategies. Thus, a bi-directional causality relationship is formed. Export may promote foreign direct investment and the other way around. (Pacheco-Lopez, 2005).

If there is evidence of a real correlation between exports and foreign direct investment, the possibility of causal relationship from exports to foreign direct investment should be considered. This possibility was relatively underexamined. For example, Product Life Cycle Theory seems to support the idea that export comes before foreign direct investment (Manuelli, 1999:13). Especially the fact that there is a causal relationship from export to foreign direct investment or export comes before foreign direct investment is accepted by theories called the Stages of Internationalization Theory. In these theories, it is argued that international initiatives have higher management intensity compared to domestic activities. Moreover different methods that an initiative uses in internationalization also put forward the degree of management intensity. While the lowest intensity is in indirect "export" the highest can be found in the completely owned "foreign direct investment." (Welch ve Luostrainen, 1985).

### 3.Materials and Methods

The methodology to be used in this section will be presented. In order to examine the causal relationship between foreign direct investment (FDI) export (EXP) and economic growth (GDP) annual secondary time series data from the 1987-2016 period are used. The data used in the study were taken from the World Development Indicators Database (WDI) of the World Bank. The three variables used are economic growth (dependent variable), export and foreign direct investment (independent variables).

Logarithmic transformations of Foreign Direct Investment (FDI), Gross Domestic Product (GDP) and Export (EXP) series were taken to protect the series against variance and partial autocorrelation in the study. The series must be stationary so that a meaningful relationship can be found between the variables. In the analyzes made with non-stationary series, spurious regression problem may arise. In this study, all of the variables were found to be stable at 1%, 5% and 10% levels by the Augmented Dickey Fuller (ADF) test.

$GDP = f(EXP, FDI)$  The logarithmic form of this equation is as follows :

$$\log GDP_t = \beta_0 + \beta_1 \log FDI_t + \beta_2 \log EXP_t + \varepsilon_t$$

GDP :Economic Growth, EXP :Export, FDI : Foreign Direct Investment,  $\beta_0$  : is the constant or intercept,  $\beta_1, \beta_2$  are the coefficients of the independent variables,  $\varepsilon_t$  : an error term.

Variables in the study were stationary at the 1%, 5% and 10% significance level by the Augmented Dickey Fuller test at the first lag.

**Table 2. ADF Unit Root Tests**

<b>D(LOGGDP)</b>	<b>Level</b>	<b>t-Statistic</b>	<b>Prob.*</b>
ADF Test Statistic <b>-3.895372</b>	%1	-3.679322	0.0059
	%5	-2.967767	
	%10	-2.622989	
<b>D(LOGEXP)</b>	<b>Level</b>	<b>t-Statistic</b>	<b>Prob.*</b>
ADF Test Statistic <b>-5.660423</b>	%1	-3.689194	0.0001
	%5	-2.971853	
	%10	-2.625121	
<b>D(LOGFDI)</b>	<b>Level</b>	<b>t-Statistic</b>	<b>Prob.*</b>
ADF Test Statistic <b>-5.352636</b>	%1	-3.689194	0.0002
	%5	-2.971853	
	%10	-2.625121	

\*MacKinnon (1996) one-sided p-values.

When the above three tables are examined, it is statistically significant that the probe values for each variable are less than 0.05. The ADF test statistic values are higher than the test critical values at absolute values of 1% 5% and 10%. Therefore, the three variables are made stationary with the first lag. In this part of the study, causality analysis was performed between the variables and the following table was obtained.

**Table 3. VAR GrangerCausality/BlockExogeneityWaldTests**

<b>1. Dependent variable: FARKLOGFDI</b>			
<b>Excluded</b>	<b>Chi-sq</b>	<b>df</b>	<b>Prob.</b>
<b>FARKLOGEXPO</b>	26.0		
<b>RT</b>	1236	4	0.0000
	2.92		
<b>FARKLOGGDP1</b>	5172	4	0.5704
	40.6		
<b>All</b>	7068	8	0.0000
<b>2. Dependent variable: FARKLOGEXP</b>			
<b>Excluded</b>	<b>Chi-sq</b>	<b>df</b>	<b>Prob.</b>

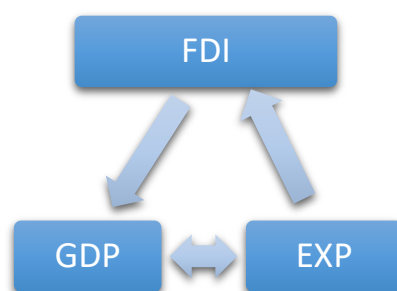
## The Relationship Between Foreign Direct Investment, Export And Economic Growth

	7.65		
<b>FARKLOGFDI</b>	3105	4	0.1051
	18.7		
<b>FARKLOGGDP1</b>	6076	4	0.0009
<hr/>			
	22.2		
<b>All</b>	9752	8	0.0044
<hr/>			
<b>3. Dependent variable:</b>			
<b>FARKLOGGDP</b>			
<hr/>			
<b>Excluded</b>	<b>Chi-sq</b>	<b>df</b>	<b>Prob.</b>
<hr/>			
	17.4		
<b>FARKLOGFDI</b>	9188	4	0.0016
<b>FARKLOGEXPO</b>	22.6		
<b>RT</b>	2865	4	0.0002
<hr/>			
	61.5		
<b>All</b>	9682	8	0.0000
<hr/>			

When the above table is examined, it is seen that exports affect foreign direct investments (prob <0.05) but GDP does not affect foreign direct investments (prob > 0.05).

In the second part of the table, GDP affected exports (prob <0.05) and foreign direct investment does not affect exports (prob > 0.05).

In the last part of the table, it is determined that both direct foreign investments and exports have an effect on GDP (prob <0.05), that is there is a bi-directional causality. In other words, foreign direct investments and exports can account for GDP.



**Table 4. Johansen Cointegration Test Results**

Series: FARKLOGGDP FARKLOGFDI FARKLOGEXP

Lags interval (in first differences): 1 to 3

**Table 4.1.Unrestricted Cointegration Rank Test (Trace)**

Hypothesize d		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.874291	70.43464	29.79707	0.0000
At most 1 *	0.449354	18.59004	15.49471	0.0165
At most 2	0.136653	3.673451	3.841466	0.0553

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level,

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

**Table 4.2.Unrestricted Cointegration Rank Test (Maximum Eigenvalue)**

Hypothesize d		Max-Eigen	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.874291	51.84460	21.13162	0.0000
At most 1 *	0.449354	14.91658	14.26460	0.0394
At most 2	0.136653	3.673451	3.841466	0.0553

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level

\* denotes rejection of the hypothesis at the 0.05 level

\*\*MacKinnon-Haug-Michelis (1999) p-values

Log

**Cointegrating Equation(s):**      likelihood      -2443.664

Normalized cointegrating coefficients (standard error in parentheses)

	FARKLOGGD	FARKLOGF	FARKLOGE
<b>P</b>		<b>DI</b>	<b>XP</b>
	1.000000	3530545. (492684.)	-2.564000 (0.45072)

**Table 4.3 Adjustment coefficients (standard error in parentheses)**

D(FARKLOGG	
DP)	<b>-1.768236</b> (0.36358)
D(FARKLOGF	
DI)	-4.40E-07 (9.2E-08)
D(FARKLOGE	
XP)	0.400881 (0.15367)

When the rank test (trace) table was examined (Table 4.1), it was determined that the probe values at none and at-most-1 were less than 0.05 and the trace statistic values were larger than the critical value. According to these results, it is determined that the three variables are co-integrated in the long term, that is, it reached equilibrium in the long-term. It has also been shown that two equations can be estimated at none and at-most-1-levels.

When the rank test (Maximum Eigenvalue) table was examined (Table 4.2), it was determined that the probes were less than 0.05 and the Max -Eigen statistic values were larger than the critical value at the none and at-most-1-levels. According to these results, it is determined that the three variables are co-integrated in the long-term, that is, reached equilibrium in the long term.

When the table of adjustment coefficients (standard error in parentheses) is examined (Table 4.3), error correction is working in the short-run analysis because it is statistically significant. 1.76% of the deteriorations that occur in each period reach equilibrium in the long run. However, the significance of the error correction model indicates a causal relationship between variables in the long run.

## Results

In this study, economic growth in Turkey is examined as function of a direct foreign investment and exports. The Granger Causality Test and Johansen Cointegration Tests are used to determine whether there is a long-term relationship between variables and to determine the direction of causality. In the examination of short and long term relationships between variables, error correction model is used.

The results obtained from this study for the period between the years of 1987-2016 in Turkey, confirms the long-term relationship between economic growth, foreign direct investments and export. This means that economic growth, foreign direct investments and exports are moving in the same direction. It can be said that direct foreign investment is a positive factor in the economic growth of a country and that exports in economies such as Turkey promote economic growth.

According to Granger causality analysis results, exports affect foreign direct investments, but economic growth does not affect foreign direct investments. Moreover, economic growth affects exports, while foreign direct investments do not affect exports. Both foreign direct investment and exports do affect economic growth, which means that there is a bi-directional causality. These results show that both foreign direct investment and exports increase economic growth. Accordingly, adapting of a growth strategy based on direct foreign investments in Turkey may be appropriate. Another result obtained from this study, the increase in Turkey's exports is creating a positive impact on foreign direct investment entering the country.

## References

- Acaravcı, A. Öztürk, I. (2012). "Foreign Direct Investment, Export and Economic Growth: Empirical Evidence from New EU Countries", *Journal for Economic Forecasting*, 2:52-67.
- Bozdağlıoğlu, E.Y. and Özpınar, Ö. (2011). "Doğrudan Yabancı Yatırımın İhracata Etkisi: Teorik Bir Yaklaşım", *Niğde Üniversitesi İİBF Dergisi*, 4 (2): 11-28.
- Dritsaki, M., Dritsaki, and C., Adamopoulos, A. (2004). "A Causal Relationship between Trade, Foreign Direct Investment and Economic Growth for Greece", *American Journal of Applied Sciences*, 1(3): 230-235.
- Haseeb, M. et al. (2014). "Exports, Foreign Direct Investment and Economic Growth: Empirical Evidence From Malaysia (1971-2013)", *American Journal of Applied Sciences*, 11 (6): 1010-1015.
- Istaiteyeh, R.M.S. and Ismail, M.T. (2015). "A Causal Relationship Between Foreign Direct Investment, Economic Growth and Export: Empirical Case for Jordan", *Advances in Management & Applied Economics*, 5(4): 19-30.
- Liu, X., Shu and C. Sinclair, P. (2009). "Trade, Foreign Direct Investment and Economic Growth in Asian economies", *Applied Economics*, 41 (13): 1603-1612.
- Mahadika, N. I., Kalayci, S. and Altun, N. (2017). "Relationship between GDP, Foreign Direct Investment and Export Volume: Evidence from Indonesia", *International Journal of Trade, Economics and Finance*, 8(1): 51-54.

Manuelli, A. (1999). Direct Foreign Investment and Export:The Case of Italy and Its Small Enterprises, The Hague Institute of Social Studies, Working Paper, No:293.

Pacheco-Lopez, P. (2005). "Foreign Direct Investment, Exports and Imports in Mexico", *The World Economy*, 28(8): 1157-1172.

Shujie, Y. (2006). "On Economic Growth, FDI and Exports in China", *Applied Economics*, 38, (3): 339-351.

Sunde, T. (2017). "Foreign Direct Investment, Exports and Economic Growth: ADRL and causality analysis for South Africa", *Research in International Business and Finance*, 41: 434-444.

Szkorupova, Z. (2014). "A Causal Relationship Between Foreign Direct Investment, Economic Growth and Export for Slovakia". *Procedia Economics and Finance*, 15: 123-128.

Tapşın, G. (2016). "The Relationship Between Foreign Direct Investment, Export and Economic Growth in Turkey", *Journal of Business Management and Economics* (4): 1-6.

Welch, L.S. and Luostarinen, R. (1985) "Internationalization: Evolution of a Concept", *Journal of General Management*, 14(2): 34-55.

# **Professional Training As A Condition For The Country's Economic Development– Kosovo**

Rifat Hoxha, Hamdi Hoti

## **1. Professional qualifying**

With the development of production and the increasing demand for different and quality products and services, the need arises for companies to invest in more advanced technology and professionally prepared staff to meet customer desires and needs.

Engine of economic development of one state are successful business of the part of his state, and the success of all business is related or if we can say directly from ability of their staff, to produce product and services with low cost and high quality and guaranteed the statement in the market.

According (Ramosaj, 2005) the managerial and operational activity contains the necessity of professional management of the work process, which must find expression in the degree of productivity of work and the distribution on the results of that work.

From this it can be concluded that the main factor of a country's economic development is that country's skilled and professionally capable workforce in all the activities needed to meet the local needs, claiming that with services and their products also penetrate into international markets. There are several elements that make up a functional vocational training system.

According (Gent Ahmetaj, Burim Ejupi, Dardan Abazi dhe Lerta Hollaj, 2016), among countless factors, the influence of these four elements such as: government, chambers of commerce, employers, and youth and parents, or lack of this impact, determines the most variations that have been observed with regard to the functionality of vocational training. Today, thanks to the major changes in economic development and the way of doing business, as a result of the development of technology, vocational training must not be restricted to one-time training but the idea of continuing training should be installed.

So companies to succeed with their products and services in local and international markets have to constantly train their staff to be prepared and fit to adapt to the constantly changing needs and demands of consumers. So, vocational training is not only characteristic of developing countries or just developed countries, but the professional training of the workforce of all institutions, whether state or private, is a key condition for economic development in the country.

At the same time we should point out that as a result of the global economy, today, businesses or individuals should not only be oriented to products or services that are sought or offered in one country but also in the global economy.

So, it can be deduced that the experts of all activities, whether they are producers, traders, service providers or consultants, have a much greater opportunity to provide a job and a higher standard of living for themselves and the family at the same time to contribute to reducing unemployment and economic development at the country level.

## **2. Research methodology**

Albeit, the main goal of this paper is increasing of consciences for one important case as a vocational training, we consider that more is needed to present the actual statement of this category including all obstacles and barriers with is faced institutions for filling the staff with professional employees of different fields. In this paper we will mainly use the descriptive and analytical methods of research, at the same time it will be oriented mainly to quality research where we will try to contact with different representatives of these competent institutions and with the effector of the field of economics as well as representatives and owner of businesses of different fields. So this research pretend to present and analyze the current state of vocation training and to offer some modest recommendation to improve this statement and to rang the institution that offer professional vocation in the deserved place as obligated institution for development of state economy.



### 3. Institutions of education and professional vocation in Kosovo

Kosovo has regulated the functioning of institutions for education and vocational training by law. According to the (rks-gov, 2013), this law aims to regulate the system of vocational education and training in line with the economic and social development needs of the Republic of Kosovo, including economic and technological changes, labor market demands and individuals to market economy, optimally utilizing financial, human and infrastructure resources.

Despite this, unfortunately we can not say that we have a satisfactory result of reducing unemployment and professional preparation from the work of these institutions. Also disturbing is the distrust of our businesses or citizens in these institutions that will be prepared by professional staff of various fields or professions.

There are very few companies that need professionally trained staff who are geared towards filling the staff at these institutions or at least making recommendations to future employees. In almost all developing countries, especially the Western Balkan countries, the very slow development of vocational schools and their lack of success in the domestic and international market comes as a result of the same or similar reasons. According (W. Eichhorst, N. Rodríguez-Planas, R. Schmidl, F. Zimmermann, 2016), obstacles of this development are attributable to missing institutional cooperation between center for vocational training, companies and social actors, focused programs in skills and competences too narrowly defined programs that are not flexible and can not to adapt needed of work and continuous technology development, and missing of cooperation platform between competent ministry and schools for vocational training. We think that we have come to this point because of the neglect of the work of people in these institutions to perform their work professionally as well as the lack of awareness of our youth which never saw development opportunities in our country but most of them are oriented to the developed western countries.

During this research, it has been noted that in some cases these institutions have been used only to provide a certificate of a profession without any specific criteria, but only to make it easier to secure a visa or workplace in Western countries.

As it is known that Kosovo possesses both underground and overland assets, these assets offer many opportunities for the development of the country, we also have the human resource, the very coveted youth from even the most developed countries, and we think that this should be the last alarm to reflect in this direction from all institutions, businesses, society and families.

On the contrary, all of this wealth and prosperity that Kosovo will have will be used for the benefit of foreign countries, and our youth will be obliged to work and contribute to the development and growth of foreign countries throughout their lives.

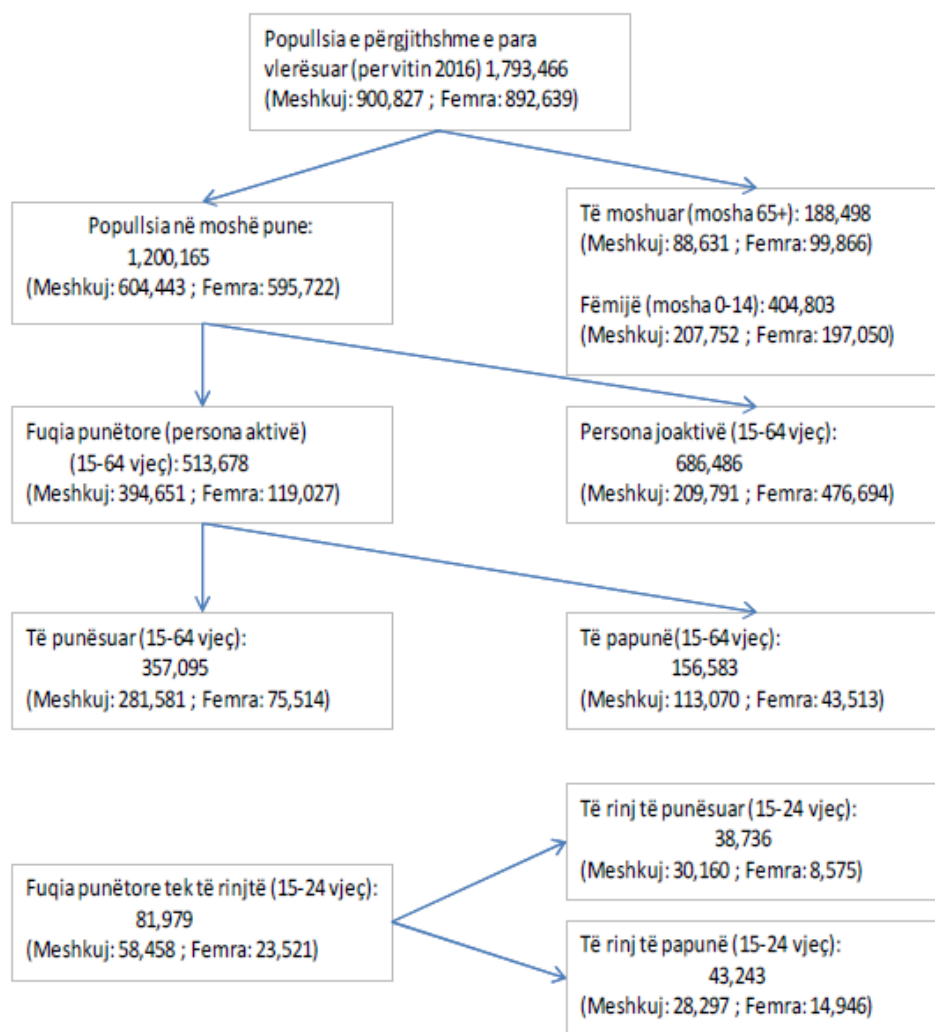
These institutions need greater control and support from the government of the country to reorganize their work and activities by offering more contemporary programs that would ensure safer employment and at the same time be clearly defined certification criteria so that people certified in different professions are professionals in their field in the full sense of the word and can compete with the same category of all developed countries. Also, these institutions should also cooperate with different businesses to see more closely what kind of staff are needed for businesses to operate their business professionally, thus aligning their programs to the needs and needs of the market. According (Mardodaj, 2015), it is clear that professions constitute the basis of a healthy development of a society, and as such, impose support and priority on any government or political party and respect by any public actor or not.

### 4. Needed for vocation training in Kosovo

Since the post-war period, Kosovo has gone through a modest economic development compared to the opportunities and capabilities it has. The high rate of unemployment and the lack of foreign investment still today continue to be the main problem on the road to economic development of our country.

According (ASK, 2017), the unemployment rate in 2017 in Kosovo was 30.5%. From this we see that one of the most important macroeconomic components gives us a rather worrying result for our country's economic future.

Graph: 1. Classification of work market for Kosovo's population for 2017 year



Source: (ASK, 2017)

The graph shows clearly that over 50% of our working age population are inactive persons or people who are not looking for work. Another feature of this chart is the presentation of the high level of youth unemployment of 15-24 years old, who are looking for work but can not find them. And this rate is over 50% of this category of youth age, which category is very coveted from development states.

Those cipher's shows that Kosovo it has a lot of capacity of human resources that are unused and that it can affect in economic development of the state if they are oriented in a professional way though preparing for different professions. However, the number of students enrolled in vocational schools at the country level is quite low. See also from the table which shows:

*Table:1 Report for 6 (six) partnership school of AAAPARr for January– June 2015 period*

Order no.	School	Number of registered students	Calendar year	Total
1	The center of competence - Ferizaj	120	2015/2016	120
2	The center of competence - Malishevë	313	2015/2016	313
3	SVHS“ShtjefenGjecovi”– Prishtinë	233	2015/2016	233
4	The center of competence- Prizren	128	2015/2016	128
5	SHMLT “ 11 Marsi”– Prizren	354	2015/2016	354
6	The center of competence– Skenderaj	127	2015/2016	127
	<b>TOTAL</b>			<b>1275</b>

Burimi: (MASHT, 2015)

From this table that shows data of first six month of 2015 year, the data which has not a lot of different as in 2018 year, show that despite the high level of unemployment again our young people lack the awareness and willingness to prepare professionally for the local or international market. It should be noted that there is a demand from private companies for workers, especially for the professions related to construction and services, but unfortunately despite the high level of unemployment, these businesses have difficulties in filling their staff with adequate workers for different positions.

A disturbing situation is also the desire to move to western countries, from young people who do not have a particular occupation, as well as from experts from various fields, from medicine to economics experts. This reality is turning Kosovo into a place where young people can not find room to penetrate the local market, while experts who are prepared for more and more sacrifices are not finding the deserved appreciation in their country and are forced to use them to contribute to the development of foreign countries.

If this trend continues, and if measures are not taken for positive changes in the current situation, Kosovo will soon be left with only a small number of experts from different fields who are willing, even though assessments and payments contribute to their country, and a very large number of "experts" who, after testing from foreign countries, have not shown their ability in relation to the certification they possess and have not been able to penetrate international markets.

## 5. Conclusion and recommendation

During the work for the realization of this research, we have noticed that vocational training in Kosovo is in urgent need for a restructuring with the sole purpose of restoring the meritorious image that these institutions should have of great importance in the economic development of the country. While in the developed countries for each certification workers have been raised in salary or position, we can conclude that the workforce of our country still does not see as possible options the vocational training institutions as the best way to develop their career.

After personal meetings with officials of some institutions of this department and with some students in these institutions, for bad luck the current situation these students do not see any great prospect of this opening up in their careers. It should be noted that for this assessment, not all the blame lies on vocational training institutions, but on the overall economic and political situation of our country. These institutions do not have the confidence of businesses to fill their staff with their students, especially businesses in the Prizren region where more research is oriented.

It is also noted that the students lack the desire and willingness to be more demanding to themselves and to different professors so that their certification is equivalent to the work and outcome they achieve. Unfortunately we have met students who have been certified only on the basis of the payment criterion without being tested at all, with the justification that diploma will use to find work more easily in foreign countries.

We think that measures must be taken to change this situation as soon as possible in our country so that young people can be offered prospects and opportunities to develop their careers in their country and at the same time All areas have the opportunity to independently practice their work with the sole purpose of continual economic development of the country.

We recommend that this change starts with the education of children by parents, that they only accept what they belong to, and that they deserve and have the desire to learn, work, and contribute to their country. Strengthen the cooperation between different businesses, different institutions and vocational schools as much as possible so that their students are prepared precisely for what is demanded by the local or international market, because in this form we think it is the best opportunity so that our products and services are competitive in the global market. Vocational training schools work on adapting programs to market requirements and continuous technological development as well as to provide continuous training of educational staff so that our students compete with students from developed countries.

The education institutions make their contribution to the development and enhancement of the image of these schools, both with different assistance and continuous monitoring, making these schools appropriate and very important for the preparation of cadres.

Knowing the economic situation of our country, knowing that as a country we can not compete in the developed countries either with technology or with heavy or light machinery, knowing that production in our country is at a very high level low, we think it is time to use the most important resource we have in the most adequate way, so our youth, to professionally prepare to be strong competitors in international markets.

We consider that the best opportunity for our country's economic development, as soon as possible, and the creation of conditions for a qualitative market for both domestic entrepreneurs and foreign investors, is massive and professional preparation our youth and giving them opportunities to express their talents in our country, in order to make Kosovo a country of prospect, well-being and high standard of living.

## References

- ASK. (2017). *Labor Force Survey*. Prishtine: Statistical Agency of Kosovo.
- Gent Ahmetaj, Burim Ejupi, Dardan Abazi dhe Lerta Hollaj. (2016). *Vocational Training in Kosovo: Specifics, relationships and problems*. Prishtine: Institute of Development Politics (INDEP).
- Mardodaj, M. (2015). *Vocation training as motor of state development*. Prishtine: Bota Sot.
- MASHT. (2015). *Report of Agency for Education and Vocation Training for adults*. Prishtine: AGENCY FOR EDUCATION AND VOCATION TRAINING AND EDUCATION FOR ADULTS.
- Ramosaj, B. (2005). *Management*. Prishtine : University of Iliria.
- Rks-gov. (2013). *Law no.4/L138 for education and vocation training*. Prishtine: Official newspaper of Republic of Kosovo.
- W. Eichhorst, N. Rodríguez-Planas, R. Schmidl, F. Zimmermann. (2016). A Road Map to Vocational Education and Training in Industrialized Countries. *SAGE Journals* , 109–128.



# Strategic Importance of Enterprise Application Integration in E-Commerce

Busra Kutlu Karabiyik, Muhsin Ozdemir

## 1. Introduction

Today, most of the firms dreams about working internationally and making high profits. Being a global firm requires acting flexibly to answer to the all changes that take place around organization. For reaching the flexibility qualification, there must be unlimited information flow in business. Therefore, firms choose to integrate their business functions and their enterprise applications to provide a useful information flow in firm and to comply with the new and changing conditions (Lee, Siau, and Hong, 2003). Managers also predominantly prefer application integration option to reduce costs and minimize meaningless processes in transactions. However; sharing the data effectively which is provided by various applications is not an easy task as assumed (Ramadhani, Sam, and Kalegele, 2016).

Organizations aim at enhancing their corporate abilities from day to day. In this context, they desire to benefit efficiently from all information technology products in firm (Khoumbati, Themistocleous, & Irani, 2006). Information technology products are widely adopted in organizations and their purchase and sale decisions are generally made by departmental authorities. Departments, considering their actual needs, demand for some technological solutions. Most of the departments generally have different and various requests. For this reason, distributed and distinctive applications that provide a variety of information may occur in a firm. Even though, these systems were produced for realizing a specific goals, there was no a special effort for generating a good communication between system's users. In this case, business requirements are met but information islands have come to exist inevitably. Information islands structures cannot share their contents exactly with each other and so, information flow in firm has not been ensured (Erasala, Yen, & Rajkumar, 2003). By enhancing useful information sharing, it is targeted to prevent information islands and bottlenecks. While international e-commerce businesses are improving in worldwide, internal and external information of business have to be tied tightly (Liu & Li, 2015). So, ensuring enterprise applications to work together may be seemed as one of the biggest problems of firms. Moreover, due to the fact that there isn't any specific corporate integration package which carry out all departmental tasks, whole enterprise applications may be integrated to each other with the help of some integration tools (Themistocleous, 2004). It also should be noted that, in the past the adaption capability of new developed systems to the legacy systems was not considered as a huge problem by experts but actually it was. The Enterprise Application Integration solution was developed to provide a platform that allows interaction between these separated and heterogeneous applications. Different applications may be integrated via Enterprise Application Integration tools (from now on, it will be abbreviated as EAI) to provide meaningful information to the firms (Gorkhali & Xu, 2016). By this way, the departments might share their business process and data easily with each other without over workload (Linthicum, 1999).

Integration actually means for integration of various data of different applications and whole business processes in a firm and importance and benefits of it are widely accepted concepts in literature (Hung, Chang, Yen, & Lee, 2015). The EAI research area has yet to achieve the desired goal, while focusing on interface development that allows seamless processing between different enterprise applications. EAI aims at synchronizing enterprise applications' data or generating new and vital functions on legacy applications (Gorkhali & Xu, 2016). Even though integration of systems has many useful outputs that easily may be understood, organizations occasionally may not adopt them. The reasons may be technological inabilities, business' inner problems and personnel oriented problems.

While technological developments and internet are evolving, traditional market places and organizations' sales strategies are also overwhelmingly changing. From day to day, customers and organizations establish unusual relationships between each other. Customers make an order in their homes and also may receive their orders at desired places. Along with e-business, the customers that

only observe products' prices can buy a product from any seller without considering sellers' physical locations. In e-commerce, business processes such as lead time, sales order processing, customer service, supply chain as well as communication between business, business partners and their customers need to be integrated. Not only business process within the enterprise but also between various enterprises should be integrated. When employers use information systems effectively; they can differentiate themselves from other enterprises and can compete with other businesses (Erasala et al., 2003).

Enterprise application integration concept may be applied on various business areas. E-commerce organizations may be addressed as one of these important areas. E-commerce organizations have already changed their traditional business models with the help of new developing technologies. A change on business model has to increase connection between suppliers and buyers. Hence, organizations aim at having integrated information systems group in order to communicate better with all partners. To do more successful e-commerce in organization, firstly the whole system has to be integrated. When e-commerce is used alone, information islands come to exist and they cannot be used effectively. Because of that EAI integrates different processes on e-commerce and contributes to make applicable and flexible structure. For more successful implementation of EAI, importance must be given to business process, business events, information systems' components, messages and message contents (Gorkhali & Xu, 2016).

## 2. E- Commerce

E-commerce (electronic commerce or EC) is the buying and selling of goods, assets and services, or the transmitting of funds or data, over an electronic network such as internet. These business processes come to exist either as business-to-business, business-to-consumer, consumer-to-consumer or consumer-to-business. The terms e-commerce and e-business are sometimes used alternately. The term e-tail is also sometimes used for defining online shopping.

E-commerce is a business method that is based on up-to-date information and communication technology. Organization collects financial information, administrative information and much more information on the business network. E-commerce firms also need good logistics, fair capital allocation and fluent information flow. E-commerce greatly affects and increases the economic efficiency of the firms. At the same time, e-commerce enterprises have an equal opportunity to compete with local and foreign large enterprises. They may get rid of store rental costs and open up easily to customers in equal conditions with large enterprises (Liu and Li, 2015).

As it is well known, internet is the most basic tool that any business cannot be implemented without. Customers and whole business partners may reach products that they desired and search for through it. With the aid of developing internet technologies, e-commerce applications are initiated to be utilized in organizations. Nowadays, almost every organization frequently benefits from them. However, e-business concept is also started to be a trendy concept in business world. After all, there has been confusion about the definitions and real meanings of e-commerce and e-business. E-commerce concept is much more different from e-business concept. E-commerce defines purchasing, selling and exchange processes of products, services and knowledge via computers. However, e-business requires a change in process and aims to add new and increasing value to a firm (Lai & Yang, 2009). E-business implies a big transformation of all processes in business.

At conventional organizations, generally the spent time and land size are more than virtual firms. Due to enhancing services and race at today's market, most of the firms often use e-commerce applications. All organizations require a serious capital and adequate technology using ability to execute their business on e-commerce system. Firms generally have deep-seated organizational behaviors. Because of that, common processes and standards have to be changed dramatically and also all technical parts of system must be redesigned to implement e-commerce properly. Besides of investing on e-commerce applications, supporting to investment on human resources is also an important issue. Employees are expected to have a deep e-commerce and information technology knowledge. Hence, organizations have to empower their human resources to increase the effects of e-commerce applications and their investments. Firms may lead their employees to attend to short term

e-commerce courses or they may reach talented personnel on the market place and may prefer to train them (Vo & Zakaria, 2016).

Data mining is also accepted as very significant tool to improve efficiency on e-commerce. E-commerce applications generally require pretty small scarce of information within huge information batch. For this reason; process structure standardization, data verification and data personalization concepts are highly important for firms (Arts, 2016). Data mining tools open a road for recognizing a customer with all details. Customers unconsciously leave some traces from themselves. So much useful information is accumulated and some special offers are made to them. As a conclusion, data mining plays an important role on e-commerce activities.

### **3. Enterprise Application Integration**

Organizations use various enterprise information technologies to meet their daily activities as good as possible. Different applications that take place in an organization should contact with each other via some communication tools. Since separate applications are generally found in different shapes and forms, they may have communications problems between each other (He & Xu, 2012). In recent years, Enterprise Application Integration (EAI) solutions have been developed in this scope for information's and applications' integration. Information that comes from different data resources are integrated is named as information integration (Büscher et al., 2016).

While firms grow globally, it is impossible to work internationally without integrating enterprise applications. For being an international firm, all applications in firm must be integrated via integration tools. ERP and EAI applications are mostly addressed tools which have slightly differences between them. ERP has discovered little earlier than EAI. At the beginning of 1990s, two core approaches Enterprise Resource Planning (ERP) and Data Storage Systems are developed. These approaches mostly support organizations' daily decisions. ERP is application software which has multiple modules to support supplier and other firms about production management, purchasing decisions, stock management, customer support and order tracking. ERP has always been a rising trend since the early 1990s. The organizations which plan to benefit from ERP's standard business process firstly must redesign their business processes (Vo & Zakaria, 2016). ERP has abilities of utilization from database exactly and minimizing the complexity of data. To apply ERP applications in organizations, firms must spend at a high rate. So the firms are willing their investments to be turned back in the form of huge profit and growth. However, most of the ERP applications cannot produce software which fits exactly to the business process. Generality of functions of ERP systems causes a serious limitation. In this case, ERP expenditures are more than its' return (Lee et al., 2003). Besides these, newer EAI concept shows up at the midst of 1990s. ERPs generally focus on integrating internal business functions. Additionally, prominent financial wealth and time period is required to apply ERP successfully in an organization. But, a supplemental and an alternative technology, EAI, may play an important role at integration of applications with less effort and time than ERP (Hung et al., 2015). Sometimes, EAI may even link between existing ERP applications. In general ERP constitutes internalization and EAI supports to create externalization. Minimum costs are produced and less programming language is required via EAI applications. While an organization want to incorporate internet, e-commerce, extranet and other technologies and at the same time it also demands for using legacy applications and databases; EAI may be the solution (Erasala et al., 2003).

EAI term is continued to gain an important popularity along with firms' IT departments' choices. Data and business processes are shared unlimitedly between whole data sources and binary applications that are connected with each other by means of EAI. EAI will be less costly and more functional than other methods. Firms generally demand to share whole data and processes without having to change their data structures and applications' general framework. While technology is developing, the value of corporate applications are tried to keep at high levels. At the same time, EAI is developed for products' outputs which are produced without a central strategy. For generations, systems are produced to serve to single user group without the purpose of being integrated to bigger systems or applications. As it well known, there are some systems to carry out services just as stock control, sales automation or human resources and etc. in organizations. These systems were developed



considering today's technology and some possible needs. However, they are also developed with nonstandard strategies. There was not a standard rule or way. Unfortunately, it is very hard task to integrate each system that means pretty much for business and also, changing the systems to new ones are pretty costly transactions (Linthicum, 1999). EAI is independent systems and they may be called as central information mediator. They aim to decrease applications' complexity. For a long time, EAI's are largely adopted for many reasons (Ebert, Weber, & Koruna, 2017). Along with the growing popularity of cloud hosting applications, EAI also may integrate the applications which take place in cloud (Ritter, May, & Rinderle-Ma, 2017).

Currently, business combinations are also getting increasingly popular in marketplace. Business' scope and offered services through combinations is aimed to be increased. In line with this purpose, it is targeted to reduce operating costs and reorganize the services by strengthening business activities and reducing unnecessary transactions. According to the studies; merged businesses use applications that work on completely different platforms. However, firms cannot handle merging them cheaply and EAI may also offer a solution to this situation. As it is easily seemed, most of the problems of firms may be associated with costs. It may be perceived that starting over to build a new system may cost cheaper than maintaining an existing one. After all, focusing an e-commerce and corporate integration which constitute a strong tie between legacy applications and high technology products may offer a quite charming advantage to an organization (Erasala et al., 2003).

In EAI applications, the technical and behavioral integration must be applied together in a firm. The hardest part of integration may be named as behavioral integration. When the commitments and roles between employees cannot be managed well, the organization may face even with the bankruptcy. Managing changes in a firm is a tough and sensitive task for managers. In other words, it can be said that behavioral integration is a critical concept to reach a successful integration in a firm (Lee et al., 2003)

#### **4. Effects of Enterprise Application Integration on E-Commerce**

Along with the growing importance and popularity of corporate information, more and more firms adopt e-commerce systems day after day. However, most of information systems are designed by distinctive organizations or different units of business independently; the information island concept is come into being. When information systems cannot share business processes and information, they also cannot stay coordinated and cannot answer to the changes of the outside world fast (Bahli & Ji, 2007). Furthermore; a lot of functions may overlap in information islands inevitably. In this case, organizations use their resources to solve the business problems that are exactly the same and so, this condition constitutes a big waste. For preventing that kind of wastes, the integration of applications is required. In this situation, integration is addressed as a whole system and information islands are tried to be destroyed. The information islands have to be wiped out to reach more effective usage of systems. Corporate information systems' potential is also must be used to the end for increasing firms' market competition, profitability and their skill of general management (Liu & Li, 2015).

EAI is an unlimited process and information sharing between all information systems influences each other. At the same time, EAI is a tool that helps firms to transform their business processes to an invisible chain and it is also pretty attractive tool that helps businesses to be perceived as an embedded system by their customers. Besides all advantages, organizations can contact with customers and suppliers consistently and so, they aim to invest more on e-commerce. EAI has moved information system concept to a completely different platform through supporting e-commerce. Finally; a firm may transport its' whole services to its customers in an easy and a flexible way. EAI does not cause current or legacy applications to be discarded; on the contrary it highlights worthiness of them and also uses them very effectively. EAI implementations in e-commerce also provide maximum benefit from legacy systems with taking minimal risk. E-commerce requires an integration between process like procurement process, preparation of sales orders, customer service, customer support, supply chain management, and it even requires integration between businesses, partners and customers (Erasala et al., 2003). Furthermore, EAI helps business to capture its customers' photography transparently. EAI

increases customer loyalty, reduces costs and ensures a required time period to markets for new product development (Vo & Zakaria, 2016).

Prices and products are presented very clearly in e-commerce system. Integration with all partners like suppliers, banks, distributors and etc. is also suggested by relevant experts. An e-commerce organization which use information systems efficiently have to inform its customers about possible time lags and also have to share its order tracking and dispatching info with the its customers. Hence, there must be a straight information flow which has to be shared with all parties. But, this is not an easy task for even organizations that use information systems generously. E-commerce organizations especially crave for it. The information about transaction processes of firms may be shared fearlessly with the customers. Customers may reach the needed information at their preferred location and on their preferred time. Thus, customer trust and loyalty are ensured firmly. Automation is one of the goals of EAI in all kind of businesses. The processes between organizations and supply chain members are automated for more effective usage of e-commerce applications. Since there was not a unique integration solution that brings different systems and applications together for a very long time, the business processes could not be automated very well. However, EAI tool helps to solve integration problems from a technical point of view and strives to create more flexible and sustainable information systems (Irani, Themistocleous, & Love, 2003). The other important subject is about time. Organizations have the advantage of reducing the marketing time for new services that they will offer to the business market through e-commerce. The EAI can provide a faster service to the market by using the information in existing systems. IT departments do not have to develop or repair existing applications. Developers should be able to integrate different applications with EAI in a simple way, create a new and easy-to-use web interface, and they should easily provide their new service offerings.

Besides real firms' integration, integration of virtual businesses is also necessary. Virtual organizations can expand their business with e-business solutions and work with their foreign trade partners in a breeze. It also may be indicated that mutual data and process integration are very substantial concepts in virtual firms. Furthermore, a virtual company also desire to show off its integrated appearance to customers. The harmony of e-business solutions and back office systems may not be seemed as just a simple goal, it is a serious and expected output. All e-business solutions are designed to collaborate with legacy systems in the firm (Irani et al., 2003).

## 5. Results

Information technology applications and integrated solutions become indispensable for all enterprises. Enterprises which focus on e-commerce sales also benefit from EAI. In this study, it is aimed at overviewing the concept of EAI in general and it is also aimed at evaluating the strategic and competitive advantages of EAI in e-commerce businesses.

A lot of functions may overlap in information islands inevitably. In this case, organizations use their resources to solve the business problems that are exactly the same and so it creates a big waste. For avoiding that kind of wastes, the integration of applications is needed. Concurrently EAI is a tool that helps firms to transform their business processes to an invisible chain and it is also pretty attractive tool that helps businesses to be perceived as an embedded system by their customers. Besides these, organizations can contact with customers and suppliers almost every time they wish. EAI does not cause the current or legacy applications to be discarded. Contrarily, EAI emphasizes value of them and also uses them very effectively (Erasala et al., 2003). EAI in e-commerce provides maximum advantage from legacy systems with taking minimal risk. EAI helps business to capture its customers' photography transparently. EAI increases customer loyalty, reduces costs and ensures a required time period to markets for new product development. (Vo & Zakaria, 2016) Automation is one of the goals of EAI in all kind of businesses. The processes between organizations and supply chain members are automated for more effective usage of e-commerce applications. Virtual organizations can expand their business with e-business solutions and work with their foreign trade partners in a breeze (Irani et al., 2003).

## 6. References

- Arts, G. (2016). DEPLOYMENT OF SEMANTIC WEB MINING : IN ENTERPRISE APPLICATION INTEGRATION , KNOWLEDGE MANAGEMENT AND E-COMMERCE ISSN : 0975-766X CODEN : IJPTFI Review Article. *Ijptonline*, 8(4), 5132–5141.
- Bahli, B., & Ji, F. (2007). An Assessment of Facilitators and Inhibitors for the Adoption of Enterprise Application Integration Technology: An Empirical Study. *Business Process Management Journal*, 13(1), 108–120. <http://doi.org/10.1108/14637150710721159>
- Büscher, C., Voet, H., Krunke, M., Burggräf, P., Meisen, T., & Jeschke, S. (2016). Semantic Information Modelling for Factory Planning Projects. In *Procedia CIRP* (Vol. 41, pp. 478–483). Elsevier B.V. <http://doi.org/10.1016/j.procir.2015.12.022>
- Ebert, N., Weber, K., & Koruna, S. (2017). Integration Platform as a Service. *Business & Information Systems Engineering*, 59(5), 375–379. <http://doi.org/10.1007/s12599-017-0486-0>
- Erasala, N., Yen, D. C., & Rajkumar, T. M. (2003). Enterprise Application Integration in the electronic commerce world. *Computer Standards & Interfaces*, 25(2), 69–82. [http://doi.org/10.1016/S0920-5489\(02\)00106-X](http://doi.org/10.1016/S0920-5489(02)00106-X)
- Gorkhali, A., & Xu, L. Da. (2016). Enterprise Application Integration in Industrial Integration: A Literature Review. *Journal of Industrial Integration and Management*, 1(4), 1–26. <http://doi.org/10.1142/S2424862216500147>
- He, W., & Xu. (2012). Integration of Distributed Enterprise Applications: A Survey. *IEEE Transactions on Industrial Informatics*, 10(1), 35–42. <http://doi.org/10.1109/TII.2012.2189221>
- Hung, W. H., Chang, I. C., Yen, D. C., & Lee, C. M. (2015). Critical Factors of Adopting Enterprise Application Integration Technology: An Empirical Study on Larger Hospitals. *Communications of the Association for Information Systems*, 36(1), 619–641.
- Irani, Z., Themistocleous, M., & Love, P. E. D. (2003). The impact of enterprise application integration on information system lifecycles. *Information & Management*, 41(2), 177–187. [http://doi.org/10.1016/S0378-7206\(03\)00046-6](http://doi.org/10.1016/S0378-7206(03)00046-6)
- Khoumbati, K., Themistocleous, M., & Irani, Z. (2006). Evaluating the Adoption of Enterprise Application Integration in Health-Care Organizations. *Journal of Management Information Systems* ISSN:, 22(4), 69–108.
- Lai, J. Y., & Yang, C. C. (2009). Effects of employees' perceived dependability on success of enterprise applications in e-business. *Industrial Marketing Management*, 38(3), 263–274. <http://doi.org/10.1016/j.indmarman.2008.01.002>
- Lee, J., Siau, K., & Hong, S. (2003). Enterprise integration with ERP and EAI. *Communications of the ACM*, 46(2), 54–60. <http://doi.org/10.1145/606272.606273>
- Linthicum, D. S. (1999). *Enterprise Application Intergration. Interface.*
- Liu, S., & Li, J. (2015). Analysis and Realization of Eliminate the “ Information Isolated Island ” in Enterprise E-commerce. In *3rd International Conference on Mechatronics and Industrial Informatics (ICMII 2015)* (pp. 611–616).
- Ramadhani, A., Sam, A., & Kalegele, K. (2016). AN OVERVIEW OF EXISTING FRAMEWORKS FOR INTEGRATING FRAGMENTED INFORMATION SYSTEMS. *International Journal of Information Sciences and Techniques (IJIST)*, 6(3), 13–23.
- Ritter, D., May, N., & Rinderle-Ma, S. (2017). Patterns for emerging application integration scenarios: A survey. *Information Systems*, 67(2017), 36–57. <http://doi.org/10.1016/j.is.2017.03.003>
- Themistocleous, M. (2004). Justifying the decisions for EAI implementations: a validated proposition of influential factors. *Journal of Enterprise Information Management*, 17(2), 85–104. <http://doi.org/10.1108/17410390410518745>
- Vo, K. Q., & Zakaria, N. H. (2016). Review of Collaborative Commerce Business based on Enterprise Application Integration in Vietnam. *Indian Journal of Science and Technology*, 9(40), 1–9. <http://doi.org/10.17485/ijst/2016/v9i40/100848>

# **The Impact Of Spillover Effects And Socio-Economic Factors On Pro-Environmental Behaviours**

Gaetano Musella, Gennaro Punzo, Rosalia Castellano

## **1. Introduction**

In the last years, European Union has increasingly placed waste management at the centre of its environmental policy and, in 2008, it adopted the Waste Framework Directive (WD) 2008/98/EC which set the basic concepts and definition related to waste management. The WD defines a hierarchy of waste treatment options (i.e, the waste reduction is the preferred option followed by reuse, recycling, recovery, and landfill) making the separate waste collection (SWC hereafter) the centrepiece of the waste management system. The directive includes two targets in terms of separate waste collection rate (SWCR hereafter) to be achieved by 2020: 50% of waste separate collected of municipal solid waste (waste from households and from other origins similar to households), and 70% of SWC from construction and demolition.

The EU Member States transpose the directive into national laws, plans and strategies. In Italy, waste management is currently regulated by Legislative Decree 152/2006 (L.D. 152/2006) that establishes the administrative hierarchy and the thresholds of SWCR. As regards the administrative hierarchy, the regions are responsible for defining waste management plans, which are implemented by the municipalities under the direct supervision of the provinces. The same L.D. 152/2006 set three targets to be achieved: 35% by 2006; 45% by 2008, and 65% by 2012.

The administrative actions, though, is but one side of the coin. The pro-environmental values, underlying individual decisions, represent the other side that cannot be overlooked. Much literature investigates the complexity of pro-environmental behaviours (PEBs hereafter) at the individual and societal levels from the various perspectives of legislation (Lanza, 1983), engineering (Noll, 1985) and social-psychological models and theories (Van Poech and Vandenabeele, 2012; Turaga et al., 2010; De Young, 1986; Burn and Oskamp, 1986). Studies from the legislative perspective address the effects on PEBs of legal measures; those from the engineering perspective consider alternative technological systems to waste recycling and management; and those from the social-psychological perspective provide moral frameworks for understanding and modelling PEBs (Turaga et al., 2010).

In this light, we aim to analyse the determinants of the SWC in Italy considering both administrative level and pro-environmental attitude. For this purpose, we use the spatial autoregressive model (SAR) on data provided by Italian National Institute of Statistics (ISTAT) at municipal level referred to 2012. The paper is structured as follows. Section 2 shows the context analysis and the stylized facts. Section 3 describes the econometric model and the data used while the main empirical findings can be found in Section 4. Section 5 concludes.

## **2. Context analysis and stylized facts**

The administrative structure of Italy is composed of four levels: national, regional, provincial and municipal. In terms of waste management, each administrative unit has specific tasks, defined by L.D. 152/2006, in a hierarchical structure. Thus, the Ministry of Environment sets up the legislative framework establishing the national targets and then draws up the National Waste Management Plan. Regions compile the regional waste management plans following the national directives. They also define the “optimal areas for the management of waste” (ATOs) that are responsible for meeting the SWC targets. The geographical dimension of each ATO is chosen to ensure the economic flexibility for waste management and generally coincide with the province. The tasks of provinces are to coordinate and to control the action of the municipalities. The latter are responsible for the operational management of separate waste collection and collect charges for managing waste.

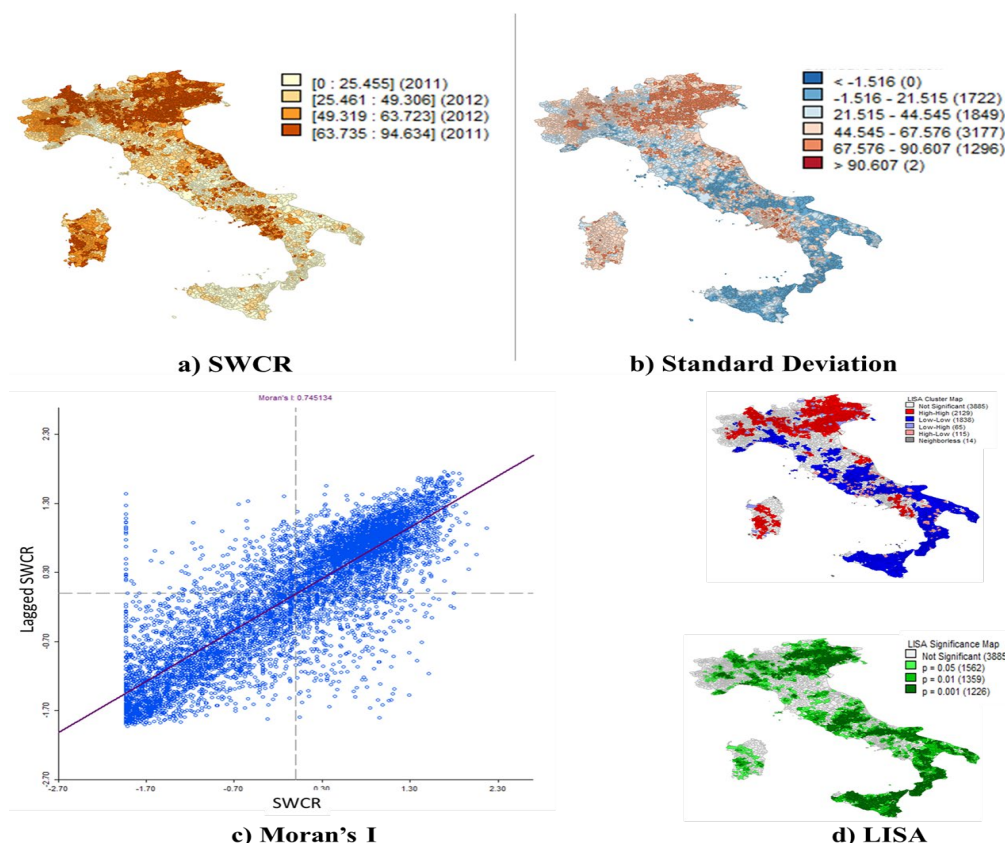
This study is performed on about 8,000 Italian municipalities. Following Garofalo et al. (2018), we choose to use the municipal data because they are the data at a finer administrative level. In this way, one has a large number of units, which ensures the convergence of the statistical models and the

validity of hypothesis tests. In addition, the article 198 of L.D. 152/2006 defines the municipalities as the “operational unit” who establishes and implements the methods of conducting SWC and transporting municipal waste. For these reasons, the municipalities represent the best suited administrative unit to our analysis. Finally, our analysis focuses on 2012 due to the greater availability of variables needed to conduct it.

The separate waste collection is defined by Art. 183 of L.D. 152/06 (paragraph f) in the following way: “the collection which aims to: 1) group the urban waste into homogeneous categories; 2) group the packaging waste materials separately from other waste. Moreover, an important condition is that the waste should be collected for recycling. Finally, the separate collection must be performed according to the cheapness, efficiency, transparency and efficiency criteria” (see Agovino et al., 2016b; 2017).

At the end of 2012, the SWCR of Italy as whole was equal to 39.9% with huge differences among the regions (ISPRA, 2013). Figure 1 shows the SWCR across the Italian municipalities (Figure 1a), the standard deviation map (Figure 1b), the global Moran's I (Figure 1c), and the local Moran's I (LISA) with significance map (Figure 1d). In more detail, Figure 1a shows the distribution of SWCR across Italian regions by quintile. It is worth noting the dichotomy between the northern and southern regions with better SWC management in the north of the country, especially in the north-eastern macro-area. Excluding Liguria, the SWC rates of the northern regions are sufficiently above the national average with peaks in Veneto (62.6%) and Trentino-South Tyrol (62.3%). An opposite trend describes the southern regions, which are all characterised by SWCR rather low with Sicily (13.2%) and Calabria (14.9%) the least effective regions. Some exceptions are present, Sardinia (48.5) and Campania (41.5%) are the most virtuous regions of the macro-area with results not very far from those of the northern regions.

**Figure 1:** SWCR, Standard Deviation Map, Moran scatter plot and LISA. Italy, 2012



Source: Authors' elaborations on ISPRA/ISTAT data

Figure 1b shows the separate collection rate as a Standard Deviation Map over the year 2012 confirming the presence of two clusters for the separate collection rate: the northern municipalities with SWCR above the national average and the southern municipalities with SWCR below it. In particular, regarding the southern Italy some municipalities of Campania (in particular, those in the

province of Benevento, Salerno and Avellino) and almost all municipalities of Sardinia reach the national average value. However, concerning the provinces of central Italy, only few municipalities of Tuscany and Emilia Romagna reach the average value.

In Italy, the global spatial dependence of the SWCR is very strong as evidenced by the value of the Moran's I index equal to 0.745 (Figure 1c). The spatial distribution leads to the conjecture that the SWCR in a given municipality is heavily influenced by the related behaviours in neighbouring municipalities. To quantify the spillover effects among the municipalities, we show the LISA cluster map (Figure 1d) that highlights interesting micro-concentrations of spatial dependence. The local Moran's I statistic detects significant spatial clusters of similar values. This measure identifies some "High-High" (red cluster in the map) and "Low-Low" (blue cluster) clusters where municipalities with high or low SWCRs are adjacent. Our results show significant clusters of high SWCRs in certain areas of north-eastern Italy and in some municipalities of Campania and Sardinia and clusters of low SWCRs in most of central and southern Italy. This means that, while the poor results in SWCR of southern areas are also due to the indifference of the inhabitants of these municipalities to the environmental issues, the citizens of northern areas are more sensitive to environmental problems.

### 3. Method

In this section, we present the econometric model and the data used to perform the analysis.

#### 3.1. Empirical Strategy

The aim of our empirical analysis is to analyse the determinants of separate waste collection. Many researchers highlight the importance of several factors such as geomorphological/demographic, socio-economic, quality of institutions and spatial spillover effects (Mazzanti et al., 2008; Crociata et al., 2016; Musella et al., 2018; Garofalo et al., 2018). In accordance with the above studies, we implement spatial autoregressive model (SAR) in order to taking into account these factors and verify whether SWCR is also characterised by spatial spillover effects. In the empirical literature, the SWCR is considered a good proxy of the pro-environmental attitude of individuals (Crociata et al., 2015; 2016) and the introduction of spatial effects allows us to distinguish between the internal and external effects. While the internal effect measures the impact of the variables on the municipality  $i$ , the external effect regards their impact on the municipalities contiguous to municipality  $i$ . SAR model consists of implementing a model that considers the spatial lag of the dependent variable in addition to the explanatory variables and, formally, is expressed as follows:

$$y = \rho W y + X \beta + \epsilon \quad (1)$$

where:  $y$  is the dependent variable (the SWCR);  $W$  is the first order contiguity matrix (queen criterion);  $\rho$  is the autoregressive spatial parameter;  $X$  is the matrix of the explanatory variables;  $\beta$  represents the coefficients associated with the regressors.

The spatial component introduces some endogeneity problems because the spatially lagged variables are typically correlated with the disturbance term (Anselin, 1988; 1999; Kelejian and Prucha, 1998). To overcome this problem, we use the instrumental variables (IV) and the two-stage least squares (TSLS) estimator. Following Anselin (2001), the IV allow capturing the exogenous share of the spatial component by using appropriate instruments that are simultaneously correlated with the spatially lagged variable and uncorrelated with the error term. Following the literature on spatial econometrics (Anselin, 1988; Kelejian and Prucha, 1998; LeSage and Peace, 2009), we use the exogenous covariates and their spatially lagged versions as instruments. Having the right number of instruments is a key issue of the procedure. Let be  $m$  the number of instruments and  $k$  the number of the endogenous regressors; we can use the procedure if the regression coefficients are exactly identified ( $m = k$ ) or overidentified ( $m > k$ ). We test the over-identifying restrictions through the J test (Sargan, 1958, 1988; Hansen, 1982) that is distributed as chi-squared with  $m - k$  degree of freedom ( $\chi^2_{m-k}$ ). The restrictions are valid when the null hypothesis is accepted. Once overcome the endogeneity problem, the coefficient of the spatially lagged variable can be estimated using the TSLS.

### 3.2. Data

The analysis performed in this work focuses on the waste generated by households, excluding the waste produced by other activities (e.g., construction or demolition), in around 8,000 municipalities of Italy for the year 2012. The information on the outcome variable, the separate waste collection rate (SWCR), are collected by the Institute for Environmental Protection and Research (ISPRA) and by the National Italian Institute of Statistics (ISTAT). The SWCR – regulated by Art. 183 of L.D. 452/2006 (paragraph f) – and represents the municipal waste separately collected as a percentage of total municipal waste (Agovino et al., 2016). In order to perform the empirical investigation and investigate the factors determining waste management performances, we merged the data on SWCR with a set of covariates taken from ISTAT. The choice of the covariates aims to control the impact on SWCR of some factors normally highlighted in the literature. In particular, we consider the geomorphological, demographic, socio-economic, and institutional quality factors. Table 1 shows detailed information on the covariates including references to the literature and the expected relation between the covariates and SWC.

**Table 1:** List of explanatory variables

Di mensio ns	Variab les	Description	Expectation	References
Geomorphologic/ Demographic	Overall Surface	Square kilometres of the entire municipality	Positive: if it increases, then the collection costs decrease through the presence of economies of scale	Domberg et al. (1986); Simões et al. (2012); Stevens (1978); Callan and Thomas (2001)
	Elevati on Ab. Sea	A measurement in metres of the elevation of a location in reference to the mean sea level	Negative: it influences the operational complexity of the separate collection activities	Musella et al. (2018) Garofalo et al. (2018)
	Popula tion Density	Ratio between the total population and total square kilometres of the municipality	Negative: in the more populous areas, the separate collection is more difficult	Mazzanti et al. (2008) D'Amato et al. (2015)
	Metrop olitan Area	Dummy for metropolitan area (ref: metropolitan area): - 1 if the municipality belongs to a metropolitan area and 0 otherwise	Negative: larger areas may make separate collection more difficult	Fiorillo (2013)
Socio-Economic	Educat ion Rate	Rate of young people (19-34) who concluded upper- secondary education	Positive: higher educated people have higher environmental values	Schultz et al. (1995); Callan and Thomas (1997; 2006); Hage and Söderholm (2008)
	Unemp loyment Rate	People aged (16- 64) that were unemployed in 2011	Positive: unemployed people have lower opportunity cost of time spent on the separate collection activities	Hage and Söderholm (2008); D'Amato et al. (2015)

	Couples with Children	Ratio between the number of couples with children and the total number of couples	Positive: parents wish to maintain the environment in the best possible condition for their children	Hornik et al. (1995)
	Value Added Per Capita	A measure of the economic prosperity of an area	Ambiguous: + Richer areas can finance separate collection more adequately. - It can lead to higher levels of consumption and more waste generation	Mazzanti et al. (2008); D'Amato et al. (2015); Agovino et al. (2016a)
Institutional Quality	IQI	A measure of Italian institutional quality. It is composed of five dimensions: - Voice and accountability; Government effectiveness; Regulatory quality; Rule of law; Corruption	Positive: local institutions have a crucial role in waste management process. Better institutions lead to better separate collection results	Mazzanti and Zoboli (2008); Nifo and Vecchione (2014); Agovino et al. (2016a)

Table 2 shows summary statistics for these variables.

**Table 2:** Descriptive statistics for the explanatory variables and SWCR

	MI N	M AX	M EAN	STANDARD DEVIATION	BIVARIATE MORAN'S I
<b>SWC RATE</b>	0.001	94.63	44.91	22.77	0.494
<b>GEOGRAPHIC/DEMOGRAPHIC</b>					
<b>OVERALL SURFACE ELEVATION AB. SEA</b>	0.12	1,287.35	37.43	50.19	0.198
<b>POPULATION DENSITY</b>	0.92	2,035.1	35.7.13	298.13	0
<b>METROPOLITAN AREA</b>	0.92	2,224.41	297.80	634.31	0.92
<b>SOCIO-ECONOMIC</b>					
<b>EDUCATION RATE</b>	16.67	100	64.02	9.21	0.033
<b>UNEMPLOYMENT RATE</b>	0.64	42.18	10.20	6.31	-0.208
<b>COUPLES WITH CHILDREN</b>	0.09	0.87	0.61	0.07	-0.071



<b>VALUE ADDED PER CAP</b>	12,493.58	4,959.9	22,032.82	5,968.25	-0.032
<b>INSTITUTIONAL QUALITY</b>					
<b>IQI</b>	0	1	0.61	0.20	-0.008

### 1. Empirical Findings

The estimation results of the spatial autoregressive model (SAR) data are presented in Table 3. We grouped the covariates into geographic/demographic, socio-economic, institutional quality, and spatially lagged factors. Regarding the spatial component, we have verified the validity of the instrumental variable (IV) and two-step least square (TSLS) through the J test (see Section 3.1). The result of the test (null hypothesis is accepted) allow us to state that the problem of endogeneity has been properly addressed.

**Table 3:** SAR coefficients on log-SWCR, Italy

	Coefficients
<b>GEOGRAPHIC/DEMOGRAPHIC</b>	
OVERALL SURFACE	-0.268***
ELEVATION AB. SEA	-0.039***
POPULATION DENSITY	0.354***
METROPOLITAN AREA	-0.146***
<b>SOCIO-ECONOMIC</b>	
EDUCATION RATE	0.394***
UNEMPLOYMENT RATE	-0.001
COUPLES WITH CHILDREN	-0.278***
VALUE ADDED	0.144**
<b>INSTITUTIONAL QUALITY</b>	
IQI	0.588***
<b>SPATIAL EFFECT</b>	
SWC RATE Spatial Lag	0.684***
Constant	-2.964***

\*Significant at 10%; \*\*Significant at 5%; \*\*\*Significant at 1%

As shown in Table 3, the *overall surface area* and *metropolitan area* variables negatively influences the separate collection operations because collection is more difficult over large areas. In fact, the large cities often have congestion problems that affect the transport and traffic conditions (Hage and Söderholm, 2008), increasing the time required for the waste management companies (or the citizens) to reach the disposal sites or recycling centres. *Population density* also makes collection operations difficult. Following Passarini et al. (2011), it is more difficult to implement a virtuous waste management system in densely populated municipalities because of service inefficiencies due to limited space for storing waste and more difficulties in implementing adequate strategies for separate collection. As well as others morphological characteristics, *elevation above the sea* makes both the operational management of separate collection and monitoring activities designed to control how citizens perform separate collection more complex (Garofalo et al., 2018).

Among the socio-economic factors, *value added per capita* and *education rate* improve the separate waste collection results. The added value is a measure of the economic prosperity of a region that influences the techniques used for the separate collection and the individuals' opportunity cost of time (Shekdar, 2009; Garofalo et al., 2018; Musella et al., 2018). For example, the waste can be collected by fixed station – less expensive method for municipalities but which requires more time commitment for citizens – or by door-to-door system. This system reduces individuals' opportunity costs of time increasing the SWCR of municipalities, but it requires significant economic resources of the local governments. The citizens' education is linked to higher SWCR. This means that the citizens more

educated have greater appreciation for valuing future time periods (Bruvoll and Nyborg, 2004) and better understand the social importance of pro-environmental behaviour.

The *quality of institutions* is one of the major determinants of the waste management results. In those municipalities, historically in the Southern Italy, where the weakness of local governments is more pronounced the proliferation of the crime organisations strongly affect waste management, making it harder to achieve high levels of SWCR (D'Amato et al. 2015; Agovino et al., 2016a). Thus, the State is unable to control and to stop the proliferation of speculative interests, which aim to manage profits from landfills (both legal and illegal), becoming an insurmountable obstacle to the separate waste collection development.

The spatial dependence, measured by *spatially lagged SWCR*, has a predominant role in explaining high levels of SWCR. The policy implications of these findings are important. In fact, the municipalities whose neighbours have a weak pro-environmental attitude may be negatively affected by these. In these cases, actions aimed at promoting the social salience of good environmental practices are called for. For example, the local governments could promote campaigns aimed to developing citizens' knowledge, sensitivity and awareness towards environmental problems. Moreover, the local authorities should intensify monitoring and control actions on separate waste collection protocols and process to avoid the transmission of bad behaviours between neighbouring areas. On the other hand, municipalities with strong pro-environmental orientations can be taken as a reference and used as a benchmark in order to replicate analogous good practices in contexts where separate waste collection is more difficult (Crociata et al., 2016).

#### 4. Conclusions

In this paper, we use the spatial autoregressive regression (SAR), to understand the main forces underlying the waste management performances. Rather than considering the single determinants of the waste management giving a partial representation of the phenomenon, in this work, as element of novelty, we analyse the joint action on separate waste collection of morphological and socio-economic factors, institutional quality, and contagion effect between areas using data at municipal level.

Overall, the analysis proves that at national level the SWCR is above the threshold set by EU in WD 2008/98/EC. However, the results differ at the macro-area level: the municipalities in northern Italy recorded the best performance, while the southern Italian municipalities prove less virtuous, although in recent years a growing number of municipalities, especially in Campania and Sardinia regions, has improved their waste management system. Our analysis highlights that the economic prosperity of a region, the citizens' opportunity costs of time, the quality of institutions and the diffusion of good behaviours are factors on which to act to improve separate waste collection. For example, while the complexity of the operational collection activities could discourage citizens, more modern and time-saving methods, such as door-to-door system, allow to minimise the efforts required to differentiate. However, these methods require huge financial resources that can only be sustained by the wealthiest municipalities. Institutional quality is a significant driving factor of the improvement of separate waste collection system. In order to properly set up separate collection, the State, after having provided the necessary rules and tools, has a crucial role in the coordination and implementation of sorting operations. The social dimension also plays a central role. We control this factor through the neighbourhood effects that may cause behavioural contagion triggering a variety of mechanisms, such as social conformity and learning by imitation, that can lead to a virtuous social conduct. Thus, it is important that citizens feel part of a virtuous social cycle that produces various kinds of benefits and personal approval within their community. If such perception is adequately reinforced by the social environment, it becomes self-fulfilling and generates large collective benefits.

This study suggests that virtuous results can be reached when institutions and citizens jointly adopt appropriate behaviours and operate in a collaborative climate optimising, in this way, the waste management process.

## 5. References

- Agovino, M., Ferrara, M., Garofalo, A. (2016a). An exploratory analysis on waste management in Italy: A focus on waste disposed in landfill. *Land Use Policy*, 57, 669-681.
- Agovino, M., Garofalo, A., Mariani, A. (2016b). Effects of environmental regulation on separate waste collection dynamics: Empirical evidence from Italy. *Journal of Cleaner Production*, 124 (1), 30 - 40.
- Agovino, M., Garofalo, A., Mariani, A. (2017). Separate waste collection in Italy: the role of socio-cultural factors and targets set by law. *Environment, Development and Sustainability*, 19(2), 589-605.
- Anselin, L. (1988). *Spatial Econometrics: Methods and Models*. Kluwer Academic, Dordrecht.
- Anselin, L. (1999). Interactive techniques and exploratory spatial data analysis. *Geographical Information Systems: principles, techniques, management and applications*, 1, 251-264.
- Anselin, L. (2001). *Spatial econometrics*. A companion to theoretical econometrics, 310330. ISO 690.
- Bruvoll, A., Nyborg, K. (2004). The cold shiver of not giving enough: on the social cost of recycling campaigns. *Land Economics*, 80(4), 539-549.
- Buccioli, A., Montinari, N., & Piovesan, M. (2015). Do
- Burn, S.M., S. Oskamp (1986). Increasing community recycling with persuasive communication and public commitment. *Journal of Applied Social Psychology*, 26, 29-41.
- Callan, S. J., Thomas, J. M. (1997). The impact of state and local policies on the recycling effort. *Eastern Economic Journal*, 23(4), 411-423.
- Callan, S. J., Thomas, J. M. (2001). Economies of scale and scope: A cost analysis of municipal solid waste services. *Land economics*, 77(4), 548-560.
- Callan, S. J., Thomas, J. M. (2006). Analyzing demand for disposal and recycling services: a systems approach. *Eastern Economic Journal*, 32(2), 221-240.
- Crociata, A., Agovino, M., Sacco, P. L. (2015). Recycling waste: Does culture matter? *Journal of Behavioral and Experimental Economics*, 55, 40-47.
- Crociata, A., Agovino, M., Sacco, P. L. (2016). Neighborhood effects and pro-environmental behavior: The case of Italian separate waste collection. *Journal of Cleaner Production*, 135, 80-89.
- D'Amato, A., Mazzanti, M., Nicolli, F. (2015). Waste and Organized Crime in Regional Environments: How Waste Tariffs and the Mafia Affect Waste Management and Disposal. *Resource and Energy Economics*, 41, 185-201.
- De Young, R. (1986). Some psychological aspects of recycling. *Environment and Behavior*, 18, 435-449.
- Domberger, S., Meadowcroft, S. A., Thompson, D. J. (1986). Competitive tendering and efficiency: the case of refuse collection. *Fiscal studies*, 7(4), 69-87.
- Fiorillo, D. (2013). Household waste recycling: national survey evidence from Italy. *Journal of Environmental Planning and Management*, 56(8), 1125-1151.
- Garofalo, A., Castellano, R., Agovino, M., Punzo, G., Musella, G. (2018). How Far is Campania from the Best-Performing Region in Italy? A Territorial-Divide Analysis of Separate Waste Collection. *Social Indicators Research*, 1-22. DOI: 10.1007/s11205-018-1936-x.
- Hage, O., Söderholm, P. (2008). An econometric analysis of regional differences in household waste collection: the case of plastic packaging waste in Sweden. *Waste management*, 28(10), 1720-1731.
- Hansen, L. P. (1982). Large sample properties of generalized method of moments estimators. *Econometrica: Journal of the Econometric Society*, 50(4), 1029-1054.
- Hornik, J., Cherian, J., Madansky, M., Narayana, C. (1995). Determinants of recycling behavior: A synthesis of research results. *The Journal of Socio-Economics*, 24(1), 105-127.
- Institute for Environmental Protection and Research (ISPRA) (2013). Rapporto rifiuti urbani, edizione 2013. [http://www.isprambiente.gov.it/files/pubblicazioni/rapporti/rapporto-rifiuti-urbani-edizione-2013/Rapporto\\_rifiuti\\_urbani\\_edizione\\_2013.pdf](http://www.isprambiente.gov.it/files/pubblicazioni/rapporti/rapporto-rifiuti-urbani-edizione-2013/Rapporto_rifiuti_urbani_edizione_2013.pdf)
- Kelejian, H. H., Prucha, I. R. (1998). A generalized spatial two-stage least squares procedure for estimating a spatial autoregressive model with autoregressive disturbances. *The Journal of Real Estate Finance and Economics*, 17(1), 99-121.

Lanza, D.R. (1983). Municipal solid waste regulations: An ineffective solution to a national problem. *Fordham Urban Law Journal*, 10, 215–245.

LeSage, J. P. (2008). An introduction to spatial econometrics. *Revue d'économie industrielle*, 123(3), 19-44.

Mazzanti, M., Zoboli, R. (2008). Waste generation, waste disposal and policy effectiveness: Evidence on decoupling from the European Union. *Resources, Conservation and Recycling*, 52(10), 1221-1234.

Mazzanti, M., Montini, A., Zoboli, R. (2008). Municipal waste generation and socioeconomic drivers: Evidence from comparing Northern and Southern Italy. *The Journal of Environment & Development*, 17(1), 51-69.

Musella, G., Agovino, M., Casaccia, M., Crociata, A. (2018). Evaluating waste collection management: the case of macro-areas and municipalities in Italy. *Environment, Development and Sustainability*, 1-33. DOI: 10.1007/s10668-018-0164-5.

Nifo, A., Vecchione, G. (2014). Do institutions play a role in skilled migration? The case of Italy. *Regional Studies*, 48(10), 1628-1649.

Noll, K. (1985). *Recovery, recycle and reuse of industrial wastes*. Lewis Publishers: Chelsea, MI.

Passarini, F., Vassura, I., Monti, F., Morselli, L., Villani, B. (2011). Indicators of waste management efficiency related to different territorial conditions. *Waste management*, 31(4), 785-792.

Sargan, J. D. (1958). The estimation of economic relationships using instrumental variables. *Econometrica: Journal of the Econometric Society*, 393-415.

Sargan, J. D. (1988). *Testing for misspecification after estimating using instrumental variables*. Contributions to Econometrics: John Denis Sargan, 1, 213-235.

Schultz, P. W., Oskamp, S., Mainieri, T. (1995). Who recycles and when? A review of personal and situational factors. *Journal of environmental psychology*, 15(2), 105-121.

Shekdar, A. V. (2009). Sustainable solid waste management: an integrated approach for Asian countries. *Waste management*, 29(4), 1438-1448.

Simões, P., Carvalho, P., Marques, R. C. (2012). Performance assessment of refuse collection services using robust efficiency measures. *Resources, Conservation and Recycling*, 67, 56-66.

Stevens, G. W. W. (1978). Reduction of Waste Resulting from Mask Defects. *Solid State Technology*, 21(8), 68-72.

Turaga, R. M. R., Howarth, R. B., Borsuk, M. E. (2010). *Pro-environmental behavior*. Annals of the New York Academy of Sciences, 1185(1), 211-224.

Van Poeck, K., Vandenabeele, J. (2012). Learning from sustainable development: Education in the light of public issues. *Environmental Education Research*, 18(4), 541–552.



# **The Analysis Of Budasiddet (This Is Also Violence) Hashtag From The Point Of View Of Neoliberal Political Economy<sup>10</sup>**

Assiye Aka

## **1.Introduction**

Neoliberalism is a concept which is used to explain the changes in capitalism such as saving crisis and profitability in the early 1970s. According to Treanor (2005), neoliberalism is a valuable philosophy besides from its former relation with an existence of a market, management, production of goods and services. On the other hand, neoliberal political economy is a new form of a management mindset which aims to universalize market relations. Neoliberal approach encourages less state involvement and reduced public spending in order "to put an end to a perceived culture of welfare dependence, and to reinvigorate the nation by giving free rein to individuals' own entrepreneurial proclivities" (Kendall, 2003 cited in Collier, 2008, p. 19). Some feminist political scientists argue that the welfare state is shrinking and that women are more dependent than men. Others have argued that there are no proposals for ending violence against women in government programs. Both of these discussions have their share of truth. Because the neoliberal policies adopted by the government make the women's body more functional; It allows the adoption of codes that will shrink significantly from expanding the field of freedom. What is important to these policies is to increase productivity. The budget for increasing productivity is not used to reduce the violence mechanisms for women.

Human geographers have recognised the potential for violence within neoliberal reforms and their resultant political environments and institutional landscapes (Chatterjee, 2009; Harvey, 2005; Hugill and Brogan, 2011). Such an approach reinforces the authority of neoliberal discourse by continuing to circulate the idea that neoliberalism as a particular model of statecraft is inevitable, a criticism Gibson-Graham (1996) make more generally with regard to capitalism.

The act of violence is a desired, desired, rejected, folded reality desired by individuals and groups. The reflection is also different in each individual and group. While it is a cause of suffering for some, it is perceived as a show of love for some. With this feature, violence is associated with emotion. But the government has adopted it as a policy, and the state has increased the violence towards the woman who is able to isolate her from the security field. It has been observed that the violence against women has been continuously increasing with the right conservative policies observed in Turkey since 1980s. The steady increase in the recent period can be explained by the fact that the government has not paid enough attention to this issue. Weldon (2002) also says that in support of this claim. "Some see violence against women policies as "mainly symbolic measures that involve little redistribution. For this reason, they present an opportunity for right-wing or neoliberal governments to mollify women's organizations without spending any money" (Weldon 2002 cited in Collier, 2008, p. 20).

Defining neoliberalism as it in act of violence is also causing trouble. According to Springer (2012, p. 136-137), neo-liberalism explores the following issues in a way that transcends classical market relations: The privatization of public assets, position individualism, competitiveness and economic self-sufficiency as fundamental virtues; attenuate or nullify all forms of social protections welfare and transfer programmes while promoting minimalist taxation and negligible business regulation. Neoliberalism disciplines market relations with it. Where is the violence of the women in the market relations?

Gender violence as systematic, institutionalized and/or programmatic violence (sexual, physical, psychological) that operates through the constructs of gender and often at the intersection of sexuality,

---

<sup>10</sup> This study was previously presented as text on the 20th EBES conference summary.

race and national identity. Gender violence comprises the acts and practices that systematically target a person, group or community in order to dictate what 'men' and 'women' are supposed to be and to discipline marginalized communities or any other perceived threats to dominant political structures and practices (Nayak and Suchland, 2006, p. 469).

Actually, some behaviors or practices do not claim to be a "ready" category, usually associated with gender violence (such as violence against some women). In particular, it is not a static or non-normative category to refer to specific experiences/practices as examples of violence based on sex, as it actually limits these experiences.

In this paper, the analysis of the tweets that were taken with the #this violence "disease will be shared with you after the violence against the woman. But it will only emphasize the appearance of governmentality and biopower of neoliberal economic policy.

### 1.1 Neoliberalism and governmentality

The governmentality literature has inspired innovative analyses of welfare state restructuring which show that social policy reform is linked to a new specification of the object of governance. Merry (2001, p. 18) states that governmentality refers to the rationalities and mentalities of governance and the range of tactics and strategies that produce social order. It focuses on the "how" of governance (its arts and techniques) rather than the "why" (its goals and values). Techniques of governmentality are applied to the art of governing the self as well as that of governing society.

It is necessary to apply Foucault to clarify the concept of governmentality. Foucault was unclear about whether these three forms of governance, organized by a logic of punishment discipline, and security, represented a sequence or a coexisting triangle (Foucault 1980 cited in Merry 2001, p. 18). He suggests that there has been a rough historical development from feudal forms of the state based on sovereignty and law to an administrative state characterized by regulation and discipline to a governmental state. Defined not simply by its territory but by its population and economic administration and controlled by the apparatuses of security (Foucault 1980 cited in Merry 2001, p. 19).

What makes Foucault's philosophical interpretation of neoliberalism particularly helpful, in my view, is his critical analysis of it, not as an ideology, economic doctrine or political regime, but as a specific, rationally reflected and coordinated way of governing: a form of liberal governmental rationality or governmentality. Neoliberalism and the state cannot be understood as simply antithetical to each other when they are understood to combine in the form of a rationally coordinated set of governmental practices. This shift of perspective to neoliberal governmentality enables Foucault to make the provocative claim that although liberal governmentality existed, socialist governmentality did not. The socialist welfare politics dominant in Europe after World War II until the neoliberal turn in the 1970s, had to operate within the dominant framework of liberal governmentality that had been developing and spreading since the 18th century. According to him, socialism has had to submit to liberal governmental rationality and assume the role of merely compensating for the harmful social effects of the free market. In other words, socialism has been forced to take the form of covert or unavowed liberalism (Oksala, 2013, p.36).

Neoliberal strategies are similar in education, in health, in the justice system, and even in the design of the female body. These strategies work very successfully to increase individuality, competition and self-prosperity. Larner (2000, p. 13) also supports this assertion in a style that says: "This conception of the 'active society' can also be linked to a particular politics of self in which we are all encouraged to 'work on ourselves' in a range of domains, including the 'counter cultural movements' outside the purview of traditional conceptions of the political".

### 1.2 Neoliberalism and biopower

Different thinkers explained punishment practices which moves from body to mentality differently. This concept biopolitics/biopower. For example, Foucault understands biopolitics as human race's basic biological characteristics as a strategic object of politics, in other words a series of a mechanism which turns it politics' object (Gambetti, 2009, p. 153-154). Under charm of sovereign power Agamben

(2005) is silent against all power mechanisms which functions beyond law in his biopower analysis kalmıştır (Lemke, 2014, pp. 86). Hardt and Negri see that as a new version of capitalism which finds economy and politics disappearing boundaries, production and reproduction, instead of becoming rule and exception. They focused on identity and subject with post constructivist critics. In *Multitud*, Hardt and Negri defines biopower concept as “a mechanism which forces a sovereign authority, which stands above society, and its order”. In contrary, biopolitical production is intrinsic of society and shapes society with kinds of collective labor by creating social relations. Imperio is a biopower order where economic production and political constructivism (Hardt and Negri, cited in Lemke, 2014, p. 86).

Within this analytics of government, “biopolitics” occupies an essential role. The Birth of Biopolitics (the title of the 1979 lecture series) is closely linked to the emergence of liberal forms of government. Foucault conceives of liberalism not as an economic theory or a political ideology but as a specific art of governing human beings. It has its target in the epistemic figure of population, and it relies on political economy as the principal form of knowledge. Liberalism introduces a rationality of government that differs both from medieval concepts of domination and from early modern state reason: the idea of a nature of society that constitutes the basis and the border of governmental practice. This concept of nature is not a traditional idea or something left over from premodern times; rather, it marks an important historical rupture in the history of political thought. In the Middle Ages good government was understood as part of the natural order created by God’s will. State reason breaks with this idea of nature, which limited political action and embedded it in a cosmological continuum. Instead, state reason proposes the artificiality of a “Leviathan”— which provokes the charge of atheism. With the physiocrats and political economy, nature reappears as a point of reference for political action. However, this is a different nature that has nothing to do with a divine order of creation or cosmological principles. At the center of liberal reflection is a hitherto unknown nature, the historical result of radically transformed relations of living and producing: the “second nature” of the developing civil society (STP). (Lemke, 2015, p. 61- 62).

In the 1978 and 1979 lectures, Foucault conceives of “liberalism as the general framework of biopolitics” (BB, 22). This account of liberalism signals a shift of emphasis in relation to his previous work. The theoretical displacement results from the self- critical insight that his earlier analysis of biopolitics was one- dimensional and reductive, in the sense that it primarily focused on the biological and physical life of a population and on the politics of the body. Introducing the notion of government helps to broaden the theoretical horizon, as it links the interest in a “political anatomy of the human body” with the investigation of subjectivation processes and moral or political forms of existence. From this perspective, biopolitics represents a particular and dynamic constellation that characterizes liberal government. With liberalism, but not before, the question arises of how subjects are to be governed if they are both legal persons and living beings (Lemke, 2015, p. 63).

The analysis of the study named as “The Analysis of #budasiddet (this is also violence) hashtag from the point of view of Neoliberal Political Economy” is shown below.

## **2. Methodology**

### **2.1. The topic of research**

After murder of Ozgecan Aslan women started to share their personal narratives on Twitter under hashtags such as sendeanlat, kadinolmak, budasiddet etc. In this study, sample data collected on Twitter between 14-19 February 2014. The tweets are searched based on #sendeanlat (tell your story) hashtag.

### **2.2. The purpose of the research**

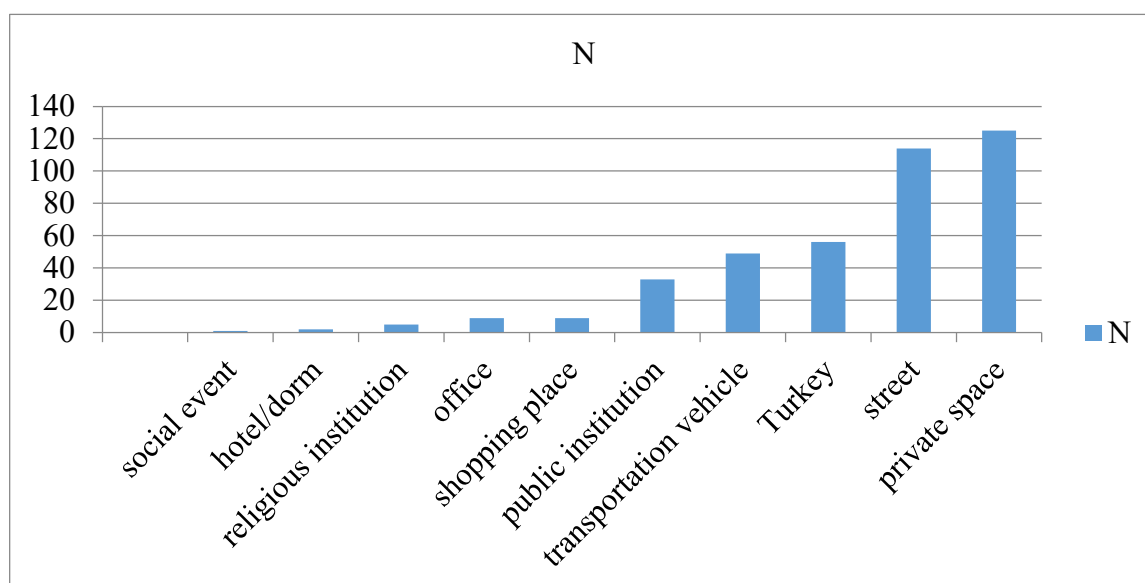
The aim of this study is examine the violence-construct and neoliberalism relations



### 2.3. The methods of the research

Between 14-19 February 2014, 614703 tweets were collected with R statistical software. First we select unique tweets (not retweet) in this dataset. After that based on user's meta-data we exclude tweets whose writers don't have location information in their profile and who don't have a profile picture. Consequently we reached a sample consists of 56583 tweets. We ordered this sample by their retweet counts and coded with MAXQDA software with an open coding approach in order to finalize our coding system. Then, in R statistical software environment we labeled sample with violence location, violence time, stressed subject, violence kind, stressed profession with violence and expression of tweet text variables.

### 3. Findings

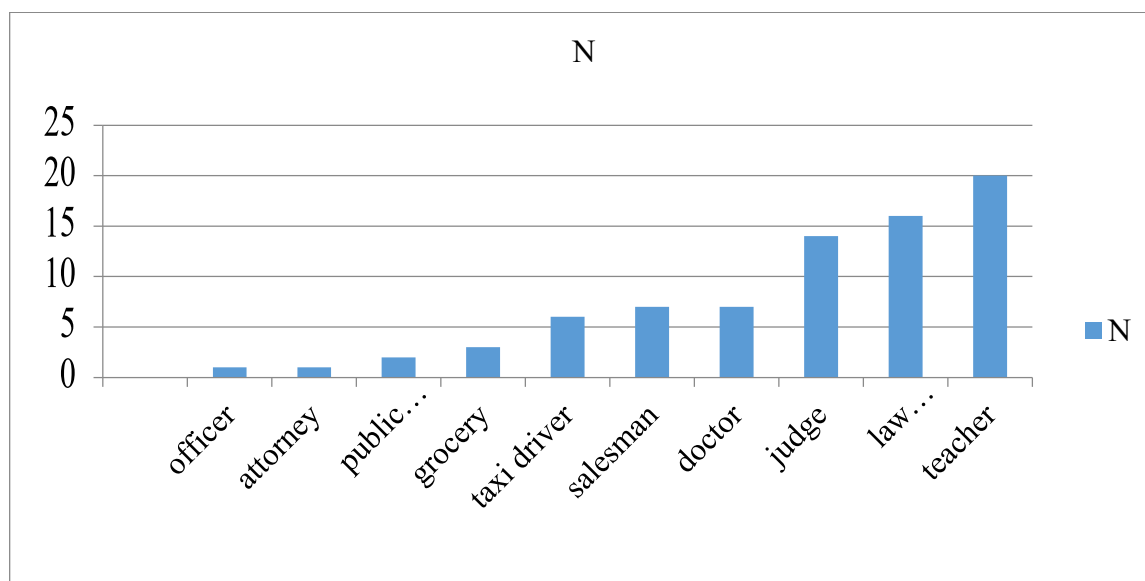


Graphic 1 The graphic showing the frequency distribution of location in tweets. In location frequency graphic private spaces stressed more than any other location detected in narratives. One can see that street's proximity to private spaces is small. Turkey and public transportation vehicles stressed also meaningfully in the narratives. Discarded tweet about the location is as follows:

#budasiddet (this is also violence) She's certain to stamp act erratically in traffic act erratically in traffic (Street).

#budasiddet (this is also violence) The country all have over women and the female body of blasphemy (Country-Turkey)

### The Analysis Of Budasiddet (This Is Also Violence) Hashtag

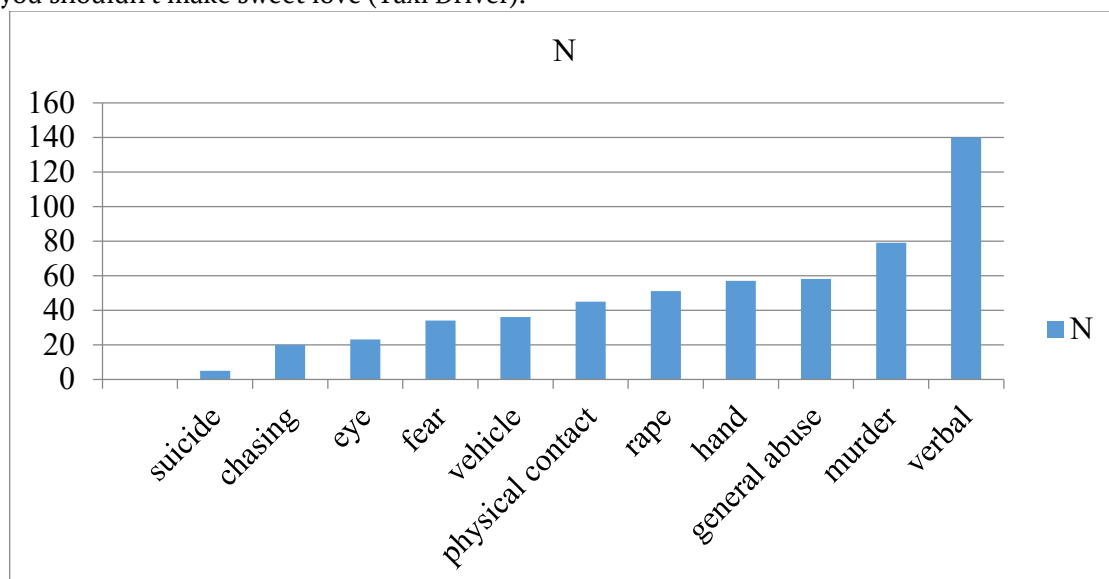


Graphic 2 The grafic showing the frequency distribution of profession in tweets

It is interesting that users stressed teachers in their narratives more than any other profession. Similarly judges and police forces have meaningful weight in the graphic. Discarded tweet about the profession is as follows:

#budasiddet (this is also violence) Engineering more than men, why didn't you write a teacher? (Teacher)

#budasiddet (this is also violence) just give me my change money marketing education, makes me feel you shouldn't make sweet love (Taxi Driver).



Graphics 3 The grafic showing the frequency distribution of violence in tweets

we can see that verbal abuse is the most stressed kind of violence in the narratives. Discarded tweet about the violence is as follows:

#budasiddet (this is also violence) It's not just women, hand, one look, even a disgusting glimpse is harassment. Dear members of the sect (Verbal).

#budasiddet (this is also violence) 5-year-old girl is raped and 12 people he gets released (Rape)

**Table 1.** The Cross Distribution Of Expression-Subject Code  
Subject

<b>Expression</b>	<b>Woman</b>	<b>Man</b>	<b>Child</b>	<b>Lgbt</b>	<b>Sum</b>
<b>Assessment</b>	54.55	31.82	13.64	0.00	100.00
<b>Governmentality</b>	55.56	44.44	0.00	0.00	100.00
<b>Question</b>	54.93	35.21	4.23	5.63	100.00
<b>Solution</b>	<b>NaN</b>	<b>NaN</b>	<b>NaN</b>	<b>NaN</b>	<b>100.00</b>

When we look at Table 1 Expression-Subject cross table, in every row women stressed more than 50%. In addition, assessments about children have a meaningful percentage in the chart.

**Table 2.** The Cross Distribution Location-Subject Code  
Subject

<b>Location</b>	<b>Woman</b>	<b>Man</b>	<b>Child</b>	<b>Lgbt</b>	<b>Sum</b>
<b>Hotel/dorm</b>	0.00	42.22	0.00	0.00	100.00
<b>Office</b>	60.00	51.11	0.00	0.00	100.00
<b>Private space</b>	48.84	100.00	13.95	0.18	100.00
<b>Public institution</b>	50.00	40.00	11.29	2.33	100.00
<b>Religious institution</b>	0.00	34.88	5.56	0.00	100.00
<b>Shopping place</b>	16.67	44.44	0.00	0.00	100.00
<b>Social event</b>	NaN	100.00	16.67	0.00	100.00
<b>Street</b>	69.33	66.67	1.33	1.33	100.00
<b>Transportation vehicle</b>	47.62	52.38	0.00	0.00	100.00
<b>Turkey</b>	<b>77.27</b>	<b>18.18</b>	<b>4.55</b>	<b>0.00</b>	<b>100.00</b>

One can see in Table 2 the location-subject chart that locations of violence is the most stressed with women. Twitter users in our sample stressed hotel/dormitory and religious institutions with men only. In addition, 'Turkey' and woman subject have a meaningful 77% in the row.

**Table 3.** Types Of Violence - Subject Codes Cross Distribution  
Subject

<b>ViolenceSub</b>	<b>Woman</b>	<b>Man</b>	<b>Child</b>	<b>Lgbt</b>	<b>Sum</b>
<b>General Abuse</b>	53.85	26.92	3.85	15.38	100.00
<b>Hand</b>	65.79	28.95	5.26	0.00	100.00
<b>Murder</b>	58.33	40.00	1.67	0.00	100.00
<b>Physical Contact</b>	70.97	25.82	3.23	0.00	100.00
<b>Eye</b>	27.27	72.73	0.00	0.00	100.00
<b>Fear</b>	73.91	17.39	0.00	8.70	100.00
<b>Suicide</b>	100.00	0.00	0.00	0.00	100.00
<b>Vehicle</b>	66.67	33.33	0.00	0.00	100.00
<b>Verbal</b>	<b>71.72</b>	<b>25.25</b>	<b>2.02</b>	<b>1.01</b>	<b>100.00</b>

In Table 3 violence-subject cross every row except abuse with eye woman subject stressed. We can say that women's self-interest is subjected to all kinds of violence.

#### 4. Conclusion

Neoliberal economics-political perspective is parsed tweets in which violence against women in this study briefly include the following. 'Neoliberalising violence' signifies the increasingly fantastic character of violence as our political imaginaries knowingly and unknowingly come to embrace the anomie and social disarticulation of neoliberalism's dystopia of individualism. According to Springer, within neoliberalism's imaginative geographies of a global village, what is not spoken is the desire for a particular homogeneity, an impulse to remake the 'Other' in 'our' image, whereby the space of 'the peculiar', 'the exotic', 'the bizarre' is continually (re)produced through the relation of the ban. As an ascendant form of sovereignty that attempts to (re)constitute class power and maintain hegemony through the production of a series of ongoing crises or 'shocks' used to pry national economies open to global markets, neoliberalism exaggerates the *abandonment* that calls the state of exception into being.

To Agamben (2005), the state of exception relies on conditions of crises, wherein individual rights may be diminished, superseded and rejected in the process of extending existing governmental power structures. Insofar as neoliberalism is a *praxis* of socio-spatial transformation that proceeds as both a quantitative destruction and discreditation entailing the 'roll-back' of certain state functions, and a qualitative construction and consolidation, which sees the 'roll-out' of reconfigured economic management systems and an invasive social agenda centred on urban order, surveillance and policing, the very *logic* behind neoliberalism's exigent modalities melds with the state of exception. Indeed, the state of exception 'marks a threshold at which *logic* and *praxis* blur with each other and a pure violence' is realised.

The highly rate of tweeting with hashtag #budaşiddet mostly in private space and then in public space very close to the previous shows the uncertainty of the violence areas. The country's (Turkey's) itself being on third rank obliges to the consideration of the acts of violence as particular to Turkey. Nevertheless, that the teachers, the policemen and the lawyers are taken place on the first rank of the second graphic points out that we need to scrutinize the decisions taken by law-makers. In the meanwhile, it is revealed that their legislations reproduce the violence problem instead of solving it. The acts of violence mostly as abuse (physically), slaughtering (physically), groping (physically) happen shown on the graphic 3 where the types of violence take place.

As the study continues, the followings can be claimed for the time being: The downsizing of the state base of the neoliberal economy politics emerges upon the topic of women's bodies not being protected. In other words, whereas the government becomes more powerful in its own safety space, it increases its control on women.

Because the study still continues, the best words to say are governments should change their understandings that women are goods as soon as possible. And policies should be developed that women are not usable existences in war, crisis and social transformation periods; in contrary they are primary factors who could produce solution these critical times.

#### References

- Agamben, G. (2005). *State of exception*. Chicago: University of Chicago Press.
- Chatterjee, I. (2009). Social conflict and the neoliberal city: a case of Hindu-Muslim violence in India. *Transactions of the Institute of British Geographers*, 34, pp.143-60.
- Collier, C.N. (2008). Neoliberalism and violence against women: can retrenchment Foucault, convergence explain the path of provincial anti-violence policy, 1985–2005? *Canadian Journal of Political Science*, 41(01), pp.19-42.
- M. (1980). *Power/knowledge: selected interviews and other writings 1972-1977/ Michel Foucault* Gordon. ed. New York: Pantheon.
- Gambetti, Z. (2009). Shifting faces of power: neoliberalism, violence and the demise of institutional politics. *IU. Journal of Political Sciences*, 40, pp.145-166.
- Gibson-Graham, J.K. (1996). *The end of capitalism (as we knew it): a feminist critique of political economy*. Cambridge MA: Blackwell.
- Harvey, D. (2005). *A brief history of neoliberalism*. New York: Oxford.
- Hugill, D. and Brogan, P. (2011). The everyday violence of urban neoliberalism. *Interview*

- with NickTheodore Monthly Review, [online] Available at:  
 <<http://mrzine.monthlyreview.org/2011/theodore050411.html>>[Accessed 4 May 2011].
- Larner, W. (2000). Neo-liberalism: policy, ideology, governmentality. *Studies in Political Economy*, 63.
- Lemke, T. (2010). *Biopolitics : an advanced introduction*. biopolitics. New York: NYU Press.
- Lemke, T. (2014). The risks of security: liberalism, biopolitics, and fear. Lemm, V., M. Vatter (Edit.). Foucault, biopolitics, and neoliberalism. Fordham University Press.
- Merry, S. E. (2001). Spatial governmentality and the new urban social order: controlling gender violence through law. *American Anthropologist*, Vol. 103, No. 1 (Mar., 2001), pp. 16-29.
- Nayak, M. And Suchland, J. (2006). Gender violence and hegemonic projects. *International Feminist Journal of Politics*, 8, pp. 467-485.
- Oksala, J. (2013). Feminism and neoliberal governmentality. *Foucault Studies*, No. 16, pp. 32-53.
- Springer, S. (2011). Neoliberalising violence: of the exceptional and the exemplary in coalescing moments. *Royal Geographical Society* (with the Institute of British Geographers), Area Vol, 44 (2), pp.136-143.
- Treanor, P., (2005). Neoliberalism: origins, theory, definition, [online].  
 <<http://web.inter.nl.net/users/Paul.Treanor/neoliberalism.html>> [Accessed 10 June 2012].

# The Manager And Organizational Culture in Albania

Roland Sahatcija, Ariel Ora, Anxhela Ferhataj

## 1. Introduction

Nowadays, everything is in fast motion. Organizations must adapt to change in order to dominate an environment in which nothing is certain. The management of organizations can be viewed as art and sciences, where correct decisions lead to success and flawed decisions lead to failure, or bankruptcy. The guidance of organizations is in the hands of managers. They assume responsibility for all management decisions that are made. In order to be successful, they need to know which are their preeminent strengths. Knowledge of strengths is fundamental in assisting their managerial work. That is because management skills play a crucial role in managing well the organization (Zenger & Folkman, 2014). One determining factor in the success of organizations is organizational culture (Henri, 2006; Lund, 2003). The culture sets the difference between various organizations. The culture of each organization is unique. This research paper studies the most valuable skills for managers and their direction of organizational culture in Albanian organizations.

## 2. Literature Review

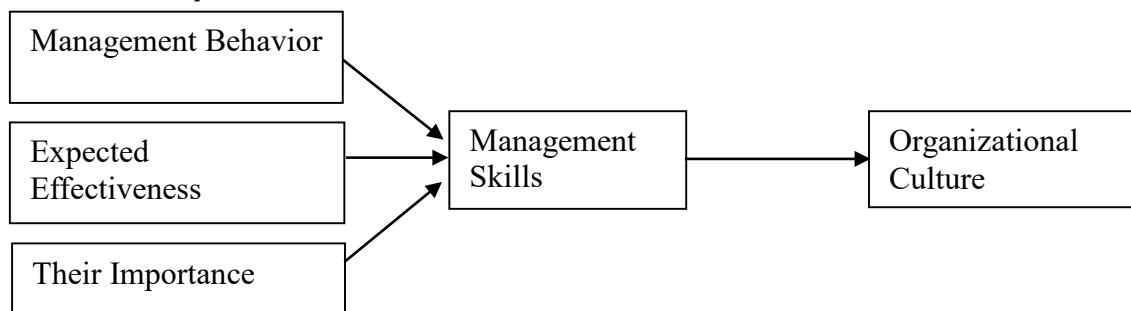
Organizational culture is a topic which has drawn the interest of many (MacIntosh & Doherty, 2010; Edú, Moriano, Molero, & Topa, 2012). Also, it is a field marked by continuous change and with immense research possibilities. It is defined as a set of values, norms, rules, and behavior which is passed on to employees (Daft, 2011). Organizational culture can be categorized into four classes: clan culture, adhocracy culture, market culture and hierarchy culture (Cameron & Quinn, 1999). The characteristics of clan culture are: friendly work environment, employees feel part of a larger family, team work, loyalty, consensus, promotion and staff development. While adhocracy culture is marked by: innovation, dynamic work environment, risk, individual promotion, goal oriented and new resource creation. Whereas market culture characteristics are: competition, goal and results based focus, success, employee competition, expanding the market share. Hierarchy culture is characterized by a structured work environment, efficiency, uniformity, hierarchical decision-making, control.

A friendly work environment impacts employee satisfaction (Azanzaa, Moriano, & Molero, 2013; Lund, 2003). They are happier and more motivated to work in such organizations (MacIntosh & Doherty, 2010).

The research questions in this study are:

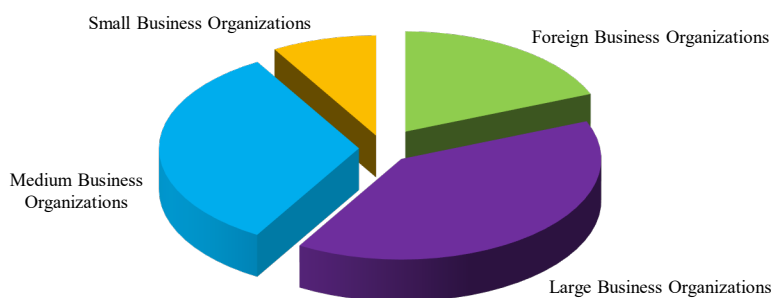
1. Which skills areas are most valued by managers?
2. Which skills area is perceived as most effective?
3. Which skills area is deemed most important in a job position?
4. Which is the managers' direction of organizational culture?

This conceptual model was derived based on the literature review:



### 3. Method

This study employs descriptive analysis and quantitative research. The research instrument used in this study is the questionnaire (Cameron & Quinn, 1999). It contains questions on: management skills, expected effectiveness and their importance in the workplace. The research was conducted online during the period June – October 2017. There are 130 study participants in different management positions in Albanian and foreign organizations. There are 108 valid questionnaires which can be used for the purposes of this analysis. The response return rate is 83%. The graph below provides data on Albanian organizations which employ our study participants.



Graph 1: Companies

The software used in the data analysis are JASP-0.8.5.1 and SPSS 20. Table 1 data shows that the reliability coefficient Cronbach's  $\alpha=0.856(>0.7)$ . It can be concluded that the data collected from the questionnaires are valid for the purposes of this research.

**Table 1:** Reliability coefficient Cronbach's  $\alpha$

	Cronbach's $\alpha$
scale	0.856

*Note.* Of the observations, 108 were used, 0 were excluded listwise, and 108 were provided.

\* minimum acceptable value 0.7.

### 4. Findings and Discussion

Which skills areas are most valued by managers?

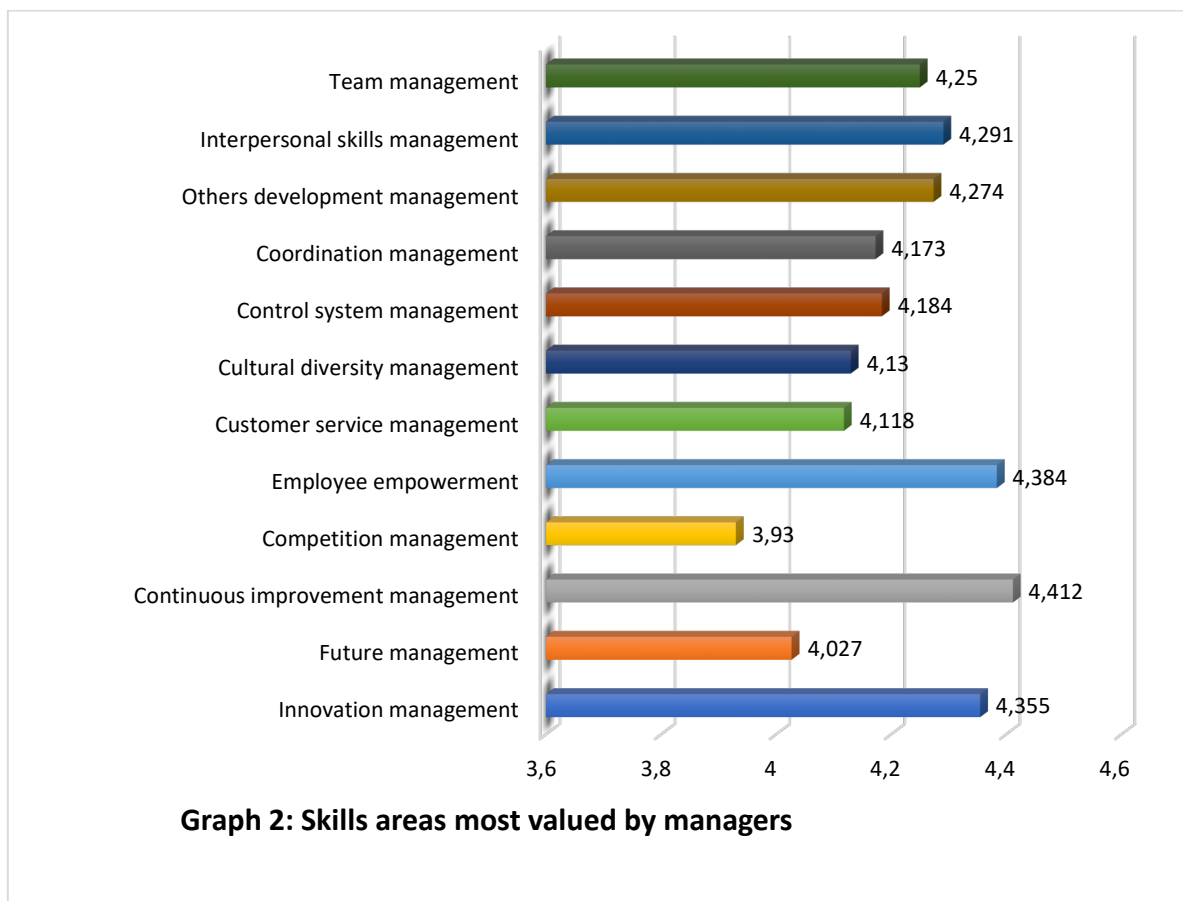
Table 2 data shows that the skills area most valued by managers is continuous improvement management with mean value 4.412. In second place is ranked employee empowerment with mean value 4.384. Innovation management ranks third with mean value 4.355. Interpersonal skills management ranks fourth with mean value 4.291. Others development management ranks fifth with mean value 4.274. Team management ranks sixth with mean value 4.250. Control system management ranks seventh with mean value 4.184. Coordination management ranks eighth with mean value 4.173. Diverse culture management ranks ninth with mean value 4.130. Customer service ranks tenth with mean value 4.118. Future management ranks eleventh with mean value 4.027. Competition management ranks twelfth with mean value 3.930. Graph 3 provides a visual representation of the above.

**Table 2:** Skills areas most valued by managers

	N	Mean	SD	SE
Innovation management	108.0	4.355	0.470	0.046
Future management	108.0	4.027	0.521	0.051
Continuous improvement management	108.0	4.412	0.530	0.052
Competition management	108.0	3.930	0.563	0.056
Employee empowerment	108.0	4.384	0.469	0.046
Customer service management	108.0	4.118	0.572	0.056

**Table 2:** Skills areas most valued by managers

	N	Mean	SD	SE
Cultural diversity management	108.0	4.130	0.500	0.049
Control system management	108.0	4.184	0.498	0.049
Coordination management	108.0	4.173	0.476	0.047
Others development management	108.0	4.274	0.491	0.048
Interpersonal skills management	108.0	4.291	0.495	0.049
Team management	108.0	4.250	0.515	0.051



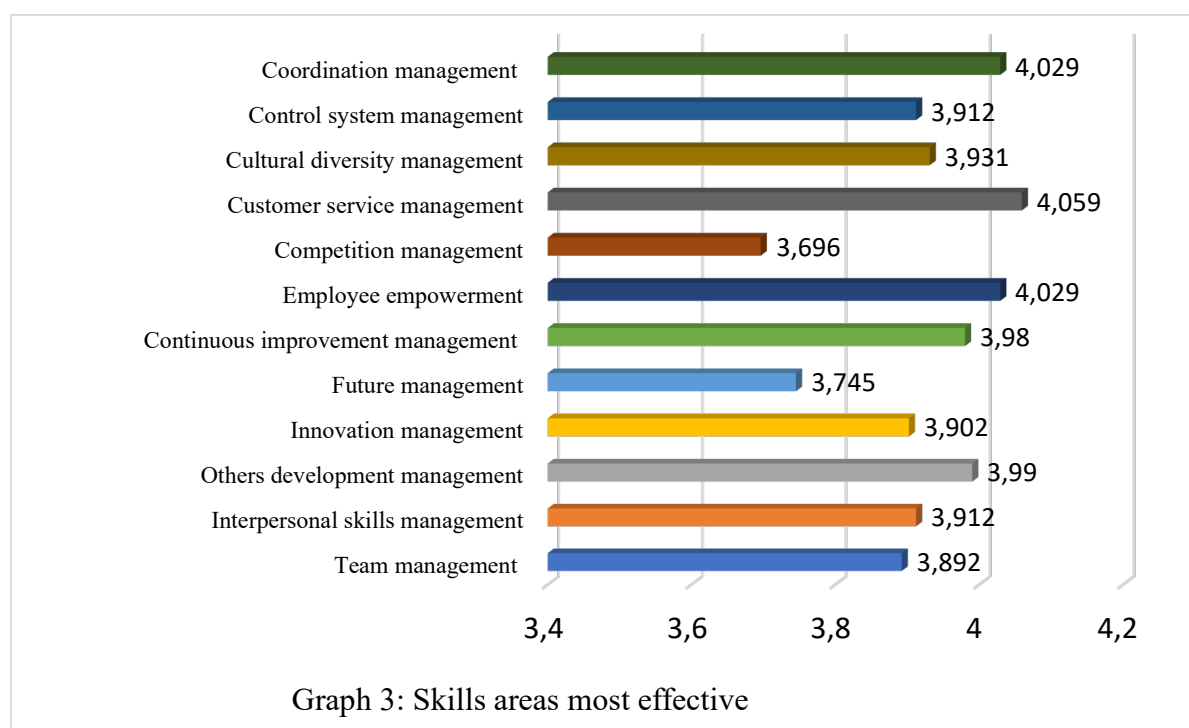
Which skills area is perceived as most effective?

Table 3 data show that managers perceive that the skills area most effective is customer service management with mean value 4.059. In second and third place are employee empowerment and coordination management with mean value 4.029. In fourth place is others development management with mean value 3.990. Continuous improvement management ranks fifth with mean value 3.980. In sixth place is cultural diversity with mean value 3.931. In seventh and eighth places are interpersonal skills and control systems management with mean value 3.912. In ninth is innovation management with mean value 3.902. In tenth place is team management with mean value 3.892. In eleventh place is future management with mean value 3.745. In twelfth place is competition management with mean value 3.696. Graph 3 provides a visual representation of the above.



**Table 3:** Skills areas most effective

	N	Mean	SD	SE
Team management	108.0	3.892	0.730	0.072
Interpersonal skills management	108.0	3.912	0.857	0.085
Others development management	108.0	3.990	0.777	0.077
Innovation management	108.0	3.902	0.802	0.079
Future management	108.0	3.745	0.841	0.083
Continuous improvement management	108.0	3.980	0.703	0.070
Employee empowerment	108.0	4.029	0.696	0.069
Competition management	108.0	3.696	0.830	0.082
Customer service management	108.0	4.059	0.768	0.076
Cultural diversity management	108.0	3.931	0.735	0.073
Control system management	108.0	3.912	0.913	0.090
Coordination management	108.0	4.029	0.737	0.073

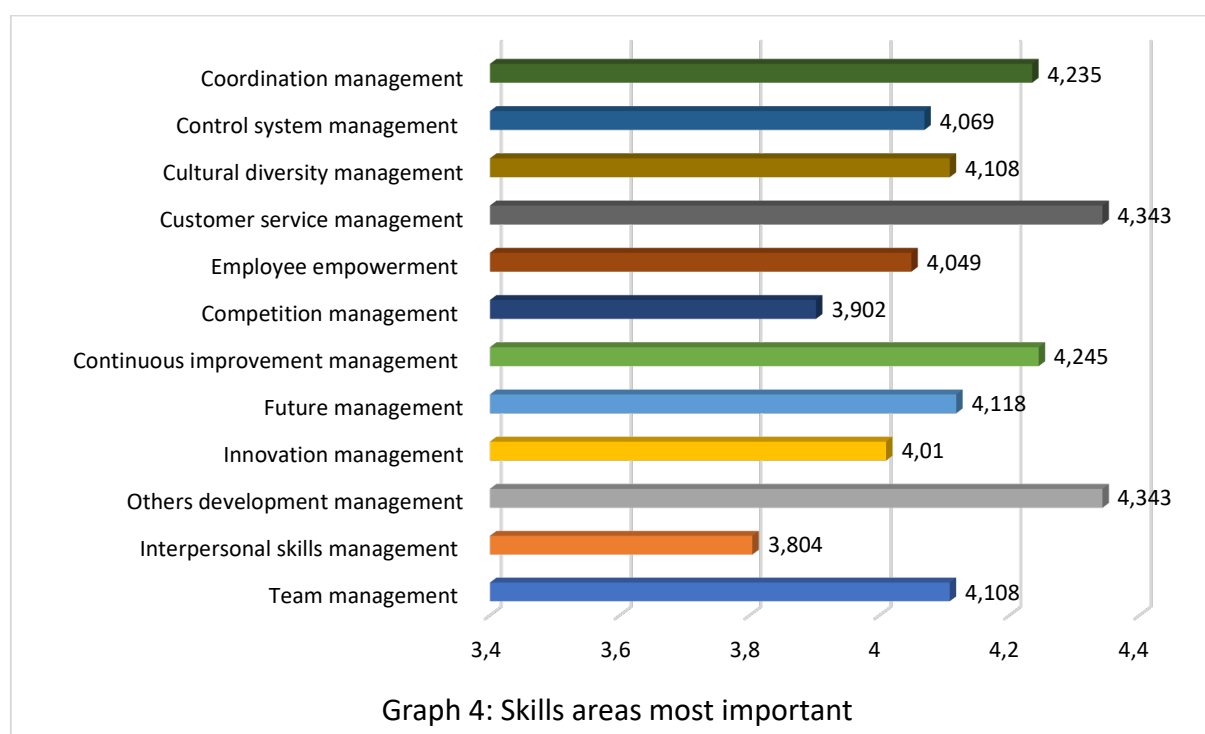


Which skills area is deemed most important in a job position?

Table 4 is instrumental in answering this question. It can be discerned in the skills area most valuable in the workplace that managers value not one but two areas. They are others development and customer service management with mean value 4.343. In second place, is continuous improvement management with mean value 4.245. In third place is coordination management with mean value 4.235. In fourth place is future management with mean value 4.118. In fifth and sixth place are team and culture management with mean value 4.108. In seventh place is control system management with mean value 4.069. In eighth place is employee empowerment with mean value 4.049. In ninth place is innovation management with mean value 4.010. In tenth place is competition management with mean value 3.902. In eleventh place is interpersonal skills management with mean value 3.804. Graph 4 provides a visual representation.

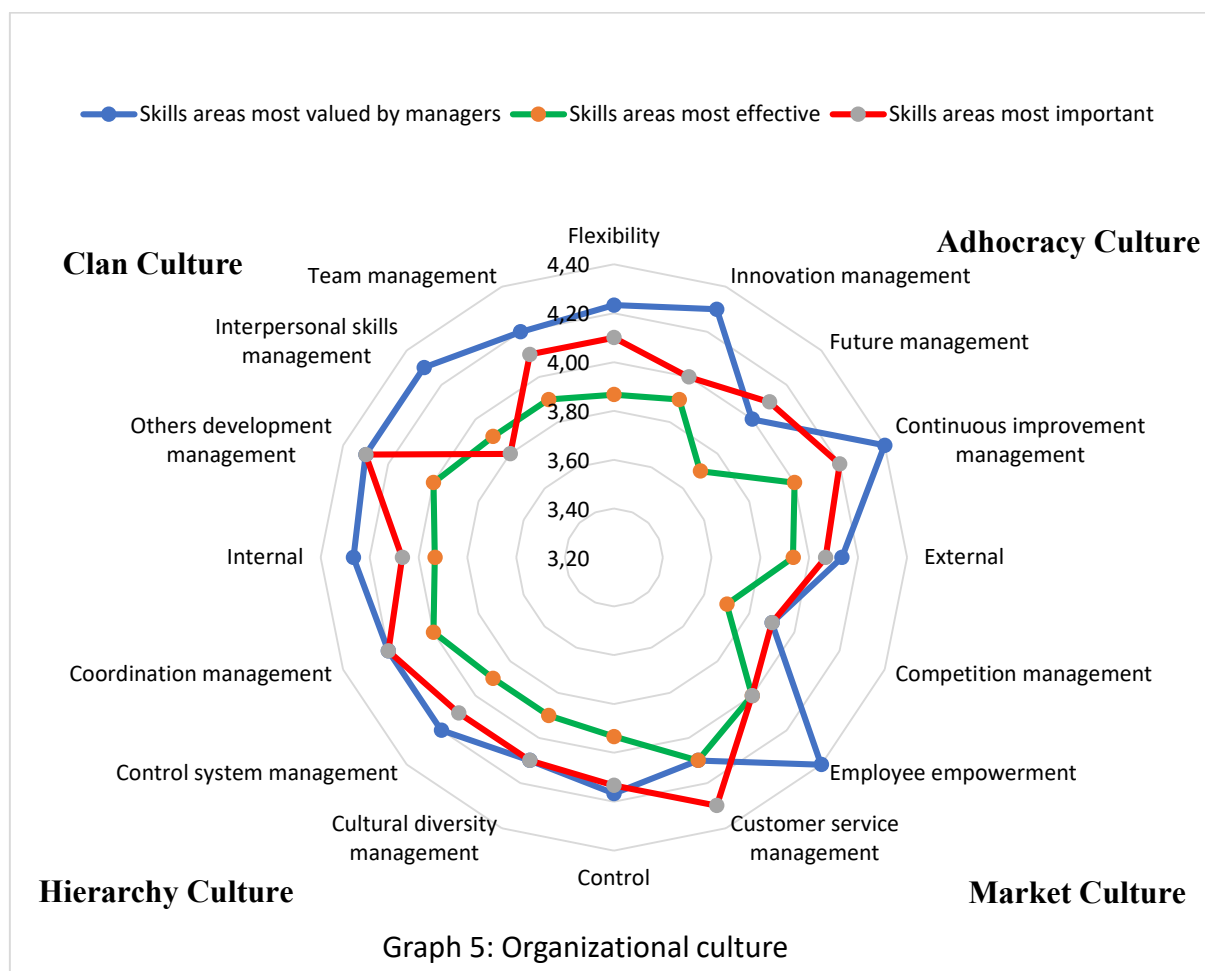
**Table 4:** Skills areas most important

	N	Mean	SD	SE
Team management	108.0	4.108	0.743	0.074
Interpersonal skills management	108.0	3.804	0.923	0.091
Others development management	108.0	4.343	0.682	0.068
Innovation management	108.0	4.010	0.838	0.083
Future management	108.0	4.118	0.859	0.085
Continuous improvement management	108.0	4.245	0.763	0.076
Competition management	108.0	3.902	0.873	0.086
Employee empowerment	108.0	4.049	0.825	0.082
Customer service management	108.0	4.343	0.724	0.072
Cultural diversity management	108.0	4.108	0.807	0.080
Control system management	108.0	4.069	0.761	0.075
Coordination management	108.0	4.235	0.734	0.073



Which is the managers' direction of organizational culture?

Graph 5 is analyzed for this question. The model contains two dimensions with four directions: flexibility, control, external and internal orientations. The combination of the two dimensions generates four types of organizational culture. If the center of the graph is assumed to be the orientation point, the higher the graph moves, the more flexible the organization. The reverse is true when moving downwards. The lower the graph moves, the more control there exists in the organization. While, the further right that it is oriented, the more influenced by external factors, and the further left that it is oriented, the more influenced by internal factors. The movement of the graph is observed, in order to find the orientation of managers toward organizational culture. It is concluded based on the graph that managers are oriented toward market culture (competition management, employee empowerment and customer service management), which is an environment influenced by external factors and there exists more control.



## 5. Conclusions and Recommendations

This study concluded that the skills area most valued by managers is “continuous improvement management”. While, “customer service management” is perceived as most effective by managers. The skills areas “others development management” and “customer service management” are viewed by managers as essential in the workplace. It is important to mention that the ranking of skills areas by managers differs in the three above mentioned cases.

Managers are oriented toward market culture. Market culture is based on competition management, employee empowerment and customer service management.

It is recommended that companies employ metrics instruments as in this study, in order to identify managers’ stances with regard to skills and perception thereof. Also, this is important for the purposes of identifying the orientation of managers toward organizational culture.

## 6. References

- Azanzaa, G., Moriano, J. A., & Molero, F. (2013). Authentic leadership and organizational culture as drivers of employees’ job. *Journal of Work and Organizational Psychology*, 29, 45-50. Retrieved May 5, 2018
- Cameron, K. S., & Quinn, R. E. (1999). *Diagnosing and changing organizational culture: Based on the competing values framework*. San Francisco: Addison-Wesley.
- Daft, R. (2011). *The Leadership Experience* (6nd ed.). Stamford, USA: Cengage.
- Edú, S., Moriano, J. A., Molero, F., & Topa, G. (2012). Authentic leadership and its effect on employees’ organizational citizenship behaviours. *Psicothema*, 24, 561-566.
- Henri, J. F. (2006). Organizational culture and performance measurement systems. *Accounting, Organizations and Society*, 31(1), 77-103. Retrieved April 5, 2018

Lund, D. B. (2003). Organizational culture and job satisfaction. *The Journal of Business & Industrial Marketing*, 18, 219-237. Retrieved April 10, 2018

MacIntosh, E. W., & Doherty, A. (2010). The influence of organizational culture on job satisfaction and intention to leave. *Sport Management Review*, 13(2), 106-117. Retrieved May 2, 2018

Zenger, J., & Folkman, J. (2014, July 30). "The Skills Leaders Need at Every Level". Retrieved from Harvard Business Review: <https://hbr.org/2014/07/the-skills-leaders-need-at-every-level>



# **Subcontract Work and A Survey on the Quality of Life of Female Workers Working through Subcontractors in the Public Health Sector**

Ari Kovanci

## **1. Introduction**

The aim of the work is to measure the quality of life of women workers working in subcontracting firm by explaining objective assessments of their working and living conditions and perceptions of subjective life. Thus, it is aimed to reveal the relation between the general qualifications of the subcontract work and the various elements of the quality of life.

In this context, within the scope of the study, primarily subcontract work from non-standard forms of employment is considered. Then, the role of women in subcontracting and the public health sector are addressed. Subsequently, the form of subcontract work is assessed in the context of quality of life. In the last part, a questionnaire study conducted with female workers working in sub-contracting firms in the public health sector is presented.

## **2. Subcontract Work as a Flexible Form of Employment**

The structural adjustment policies implemented in the context of neo-liberal policies since the 1980s have led to the increase of unemployment, poverty and underemployment and the spread of the informal economy (Smith, 2010). From this point of view, one of the most important consequences of the capitalism globalization process seems to be the restructuring of labor markets along the lines of flexibility, insecurity and deregulation in order to reduce labor costs with neo-liberal policies. Precariousness and lack of protection are becoming more prevalent and become the dominant quality of the labor market (Cigerci Ulukan & Özmen Yilmaz, 2016).

While the restructuring of the labor market has reduced the employment opportunities in many countries, many workers, especially unqualified workers, have lost their jobs, leading to significant changes in the working conditions of some segments and new forms of employment (Şenses, 2001). Indeed, it seems that non-standard forms of employment such as part-time work, temporary work, home work, subcontract work, call-up work, fixed-term work and call-work have become increasingly widespread over the last 40 years as a result of the flexibility of labor markets (Temiz, 2004). In this context, there is a new agenda called fragile employment with fragile, unstable, precarious and temporary qualities in the process of increasing flexibility applications and emerging new forms of employment (Canbey Özgüler, 2013).

Subcontract work has become one of the undeniable facts of working life today as one of the non-standard employment forms, which is a reflection of the increased flexibility in the labor market (Karadeniz, 2011; Republic of Turkey Ministry of Development, 2014). Indeed, subcontract work or sub-employer application has become widespread today as an employment model based on the principle of labor market disintegration to meet the cheap and easily managed labor requirement of the capital (Cigerci Ulukan & Özmen Yılmaz, 2016).

Subcontracting is the production or service of other workplaces outside the enterprise, or by employing other workers for various purposes within the enterprise (Gökbayrak, 2003). The worker employed by the subcontractor is called the subcontracted workers (Kaya, 2015). Subcontract work is a type of flexible work called external numerical flexibility. Working with subcontractors (or other non-standard working relationships) allows businesses to have the flexibility to work with subcontractors instead of doing work with indefinite periodic service contracts in the process of recruitment (Tiyek, 2014). Because businesses are providing numerical flexibility by changing the quantity and quality of the labor they need according to the changing economic and technological conditions, new production techniques, in particular the amount of demand (Karadeniz, 2011).

Subcontracting, however, can be defined as giving certain parts of the work to subcontracts and other businesses as the result of transformations in production processes, particularly in sectors where the work is easily divisible (Gökbayrak, 2008). In this sense, it is possible that the subcontracting may be expressed as a substitution of a commercial contract to replace a service contract (Kaya, 2015). It is possible to see that there are a large number of services that are outsourced by businesses, which can be subcontracted and produced more efficiently and cheaply by subcontractors. It is possible to see that services such as cleaning, food, production, marketing, advertising, customer relations, e-mail, repair-maintenance, entrance, security and ar-ge activities are included in the services provided by subcontractors (Parlak & Özdemir, 2011).

Subcontract work is a consequence of the breakdown of the production process, and this fragmentation creates a dependency relationship between the main business and the subcontractor. In relation to this dependency, it is seen that the main business is in a state of speaking; in the context of the addiction relationship, the main employer recognizes the good wages, social security and unionization relative to his workforce; self-dependent subcontractor seems that the employees are subjected to different applications (Yücesan Özdemir, 2010). Workers of two different employers in the workplace work together in the same production process, but in two different social statuses. The aim of employers to realize the production of goods and services in their workplace not by their own workers but by the workers of other employers is usually due to the desire of the employer to avoid the obligations of labor and social security law by decreasing the number of permanent workers and to get out of the union organization and collective bargaining system (Güzel, 2004).

Subcontracting is regarded as a tool for eliminating many of the benefits workers have achieved while employing competition by employers as a result of today's production technology and management conception and as a result of lowering costs (Republic of Turkey Ministry of Development, 2014). Indeed, it is noteworthy that the definition of the task between its features is uncertain and that this ambiguity is continuous in the prevailing conditions of insecurity. However, subcontract work seems to include factors such as low wages, severe working conditions, job insecurity, serious loss of social rights, lack of social insecurity, lack of worker health and safety, and deunionization (Yücesan Özdemir, 2010).

### **3. The Role of Women in Subcontracting and the Public Health Sector**

The way employment through the subcontracting is one of the current forms of informal employment, where formal employment is characterized by the flexibility of the workforce to increase competitiveness in the globalization process (Erdut, 2005). However, in the process, such as the informalization of labor and the expansion of the service sector (Standing, 2014), non-standard forms of employment such as subcontract work are increasing, women are often preferred as cheap and flexible workforce (Erdut, 2005). This is due to the desire to create a flexible workforce that can be operated easily and at low cost (Temiz, 2004). The low perception of the value of women's labor and the perception of income as a secondary income are easily tolerated by non-standard work such as home work and short work in harmony with these responsibilities, because their responsibilities in the home often remain unchanged; concentrating on patience and rehabilitation; unorganized and obedient and easily discouraged, make the women workforce attractive in terms of employers (Urhan & Etiler, 2011).

In this context, it is possible to say that women work in a significant part of the precarious jobs that today are involved in subcontract work (Standing, 2014). There are various reasons for the increase in the proportion of women in this type of work. One of the main factors that force women to work is lack of necessity for living and livelihood. Indeed, more and more women are participating in the informal workforce, as they are in need of income, both at low levels and irregular, and because they have no other choice in terms of the area to work (Erdut, 2005).

Indeed, it appears that the number of women working as subcontracted workers in the labor market is increasing. It is known that there are many sorts of women who do not require qualifications such as cleanliness, food, or who want to enter into subcontractor business with low quality, although their distribution is different by sectors. In this sense, it can be said that the subcontracting of female

labor is very high. Nevertheless, the public health sector has come to the forefront, especially in relation to the transformation it has experienced in recent years, among the areas in which women are employed as subcontractors in nonqualified jobs (Cigerci Ulukan & ÖzmenYılmaz, 2016).

The main reason for employing subcontracted workers in the public sector is to reduce labor costs and create a "cheap labor force" and reduce the number of public employees working as permanent staff. With the two important amendments made in the Civil Servants Law No. 657, especially in 1988 and 2003, it was made possible to employ subcontracted personnel. In the 36th article of the Law, the public services which the officials see in the two paragraphs added to the category of auxiliary services class in 1988 and the class of health services class in 2003 started to be seen through the purchase (Özkal Sayan, 2016). Thus, in the last few years, the private sector sub-employers of public institutions and organizations have increased their resources by providing services such as cleaning, security, information processing and food service (Görmüş, 2013). In this context, the intensive use of subcontract work in the health sector due to the transformation in the public sector, privatizations, market-centering of the health sector and outsourcing of public services, constitutes the basis for women to participate in employment even in precarious and heavy working conditions (Cigerci Ulukan & Özmen Yılmaz, 2016).

#### **4. Assessment of the way of Subcontract Work in the Context of Quality of Life**

Quality of life is handled at different angles, depending on whether it is a multi-dimensional concept based on objective living conditions and subjective perceptions and evaluations. The quality of life can be explained by not having a compromised definition but by being able to live in a healthy environment, to meet basic needs such as nutrition, protection and accommodation, to find suitable possibilities for physical and mental development, to use creative power and to have positive contributions to the neighborhood (Torlak & Savaş Yavuzçehre, 2008). According to another approach, quality of life is assessed in terms of living standards, lifestyle, relations between social classes and poverty (Sapançalı, 2009). However, quality of life includes physical, social, environmental, and psychological conditions of improving the quality of the environment in which people live, the level of satisfaction with the work and the present situation of the individuals at a certain time and their expectations (Yılmaz, 2012). In this context, it can be stated that objective conditions such as income, health, education, employment, housing, environment, security are important both in terms of quality of life and in social care.

However, the quality of life depends on one's feeling of well-being, the satisfaction of one's life, and the satisfaction of happiness (Torlak & Savaş Yavuzçehre, 2008). From this point of view, it is emphasized that quality of life is related to happiness and it is important to measure the level of satisfaction of "expectations of happiness" of individuals in order to be able to demonstrate their quality of life. In other words, the concept of quality of life is revealed by the subjective/subjective prosperity indicators. In this sense, the quality of life reflects the difference between the hopes and expectations of the individual and their transformation into experiences (Yılmaz, 2012).

On the other hand, the most important variable regarding the working life that determines quality of life from the social point of view is the level of employment and forms of employment. Employment, both as an income source, determines the purchasing power and strengthens the individual, and is seen as the cornerstone of social inclusion and cohesion. It is also regarded as a fundamental element that determines the place, status, recognition and self-confidence of the individual in society. Therefore, meeting the human needs depends on a great deal of work. The opposite, the unemployment situation, is often the source of poverty and social exclusion, which means that many people's needs can not be satisfied (Sapançalı, 2009).

However, the way in which it is employed, as well as employment, determines quality of life. The "formal and informal" and "standard and non-standard" employment relationships that emerge in the labor market are determinants of quality of life, with formal and standardized forms of employment, such as legality, regularity, stability, assurance and protection, positively affecting quality of life: informal and non-standard forms of employment with high risks for instability, insecurity, uncertainty, lack of protection, economic and social fragility, poor working conditions, physical and mental health have negative implications for quality of life (Sapançalı, 2009). In this sense, non-standard forms of



employment in a variety of forms, such as subcontracted working, periodic work, temporary work, part-time work and self-employment, are important issues for the quality of life as long as they are not voluntarily preferred for employees (Leschke & Watt, 2008).

In this context, the practice of employing subcontractors through the precarious work styles, both in the private sector and in the public sector in recent years, has resulted in a negative impact on the quality of life can be considered as an element that acts.

## **5. A Survey on the Quality of Life of Female Workers Employed by Subcontractors in the Public Health Sector**

### **5.1. The Methodology of the Study**

#### **5.1.1. The Purpose, Methodology and Example of the Research**

The purpose of the study is to examine the relationship between working and living conditions and quality of life of women workers working in the public health sector through subcontracting firms.

In the realization of the research, face-to-face survey method was applied from quantitative research methods. Within the scope of the research, a questionnaire was conducted with 100 female workers of A1 type 800 beds and 100 female workers working under the subcontracting of university hospital in İzmir. Surveys were conducted with subcontracted female workers who worked as cleaning, food, patient care, security, information processing staff and secretary using random sample method in the institutions concerned.

The limitation of the research is that the subcontracting employee working in the hospitals where the study was carried out, 200 women working in subcontracting do not carry the quality of representing women as whole.

#### **5.1.2. Formulation of the Scale and Questionnaire used in the Survey**

The questionnaire used in the research was based on the European Quality of Life Survey conducted by the European Foundation for the Improvement of Living and Working Conditions (Eurofound) in 2007 and 2012 and the Life Satisfaction Survey conducted by the Turkish Statistical Institute (TÜİK). Satisfaction with Life Scale developed by Diener, Emmons, Laresen and Griffin (1985) and adapted to Turkish by Köker (1991) was used to measure life satisfaction. However, the questionnaire has been added to the questionnaire based on the national and international literature, which should be addressed by the researcher in the context of the research.

### **5.2. Analysis of Data And Findings**

Within the scope of the study, all data were analyzed and compiled with IBM SPSS Statistics 20 program, classified and scaled, and all research data were finalized by outlier analysis. The data that have been adapted for analysis are reported through available the Reliability Analysis, The Validity Analysis, the Factor Analysis process. The assumptions of normality and the data giving a sufficient sample structure (KMO Test), T Test, ANOVA (One-Way-ANOVA, Variance Test), Post Hoc Test, Tukey HSD, LSD Test, Chi-Square Test, Pearson-Correlation analyzes were applied. Meaningful and related outcomes were reported at a  $p=0.05$  significance level of 95% confidence level.

Table 1 provides data on the demographic characteristics of the participants. However, questions were also raised regarding the income situation of the study. Table 1 also shows the answers given by women workers to these questions.

**Table 1.** Demographic Variables of the Participants and Statistical Analysis

		<b>Frekans (n)</b>	<b>Percent (%)</b>	<b>Cumulative Percentage (%)</b>
<b>Age</b>	<b>Between 18-24 years</b>	22	11,0	11,0
	<b>Between 25-39 years</b>	117	58,5	69,5
	<b>Between 40-54 years</b>	60	30,0	99,5
	<b>55+</b>	1	,5	100,0
	<b>Total</b>	200	100,0	
<b>Gender</b>	<b>Woman</b>	200	100,0	100,0
	<b>Total</b>	200	100	
<b>Education</b>	<b>Literate</b>	1	,5	,5
	<b>Primary School</b>	31	15,5	16,0
	<b>Graduate</b>	36	18,0	34,0
	<b>Secondary School</b>	80	40,0	74,0
	<b>Graduate</b>	52	26,0	100,0
	<b>High-School</b>	80	40,0	74,0
	<b>Graduate</b>	52	26,0	100,0
	<b>University and higher</b>	52	26,0	100,0
<b>Marital Status</b>	<b>Total</b>	200	100,0	
	<b>Married</b>	146	73,0	73,0
	<b>Single</b>	38	19,0	92,0
	<b>Divorced</b>	16	8,0	100,0
	<b>Total</b>	200	100,0	
<b>Child</b>	<b>Yes</b>	141	70,5	70,5
	<b>No</b>	59	29,5	100,0
	<b>Total</b>	200	100,0	
<b>Individual Average Monthly Income</b>	<b>0-500 TL</b>	2	1,0	1,0
	<b>501-1.000 TL</b>	74	37,0	38,0
	<b>1.001-1.500 TL</b>	107	53,5	91,5
	<b>1.501 TL- 2.000 TL</b>	13	6,5	98,0
	<b>2.001 TL- 3.000 TL</b>	4	2,0	100,0
	<b>Total</b>	200	100,0	
<b>Households Average Monthly Income</b>	<b>0-500 TL</b>	1	,5	,5
	<b>501-1.000 TL</b>	10	5,0	5,5
	<b>1.001-1.500 TL</b>	23	11,5	17,0
	<b>1.501 TL- 2.000 TL</b>	74	37,0	54,0
	<b>2.001 TL- 3.000 TL</b>	59	29,5	83,5
	<b>3001 TL-4000 TL</b>	19	9,5	93,0
	<b>4001 TL and above</b>	14	7,0	100,0
	<b>Total</b>	200	100,0	

**Reliability Analysis**

The reliability analysis results of the scales used in the study are listed in the following tables.

**Table 2.** Life Satisfaction Scale Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.849	5

According to Table 2, Cronbach's alpha value is subcontracted the scale is relied on high level because it is measured as  $\alpha=0.849>0.80$  in the H2\_1 - H2\_5 question group for women's life satisfaction scale.

**Table 3.** Going on a Holiday, Food, Outside Eating, Life Condition Scale Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.737	3

According to Table 3, Cronbach's alpha value is highly reliable because the subcontracted women in the health sector are measured as  $\alpha=0.737>0.60$  in the questionnaire D5\_2, D5\_4, D5\_7, which is designed for the life satisfaction of the women who go to holiday, food, outside eating.

**Table 4.** Social Security Life Condition Scale Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.732	3

According to Table 4, because Cronbach's alpha is measured as  $\alpha=0.732>0.60$  in the E1-E3 questionnaire for women who work in the health sector for social security living conditions, the scale is highly trustworthy.

**Table 5.** Business Life Balance Life Condition Survey Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.618	3

According to Table 5, because Cronbach's alpha value is measured as  $\alpha=0.618>0.60$  in the F1\_1, F1\_2, F2\_4 question group, which is created for the work life balance condition of subcontracted women in the health sector, the scale is highly reliable.

**Table 6.** Job Satisfaction Scale Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.657	5

According to Table 6, the scale is highly reliable because Cronbach's alpha value is measured as  $\alpha=0.657>0.60$  in the F2\_1 - F2\_5 question group, which is established for the job satisfaction scale of subcontracted women in the health sector.

**Table 7.** Effect of Work on Social Relations Scale Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.733	10

According to Table 7, the scale is highly trustworthy because Cronbach's alpha value is measured as  $\alpha=0.733>0.60$  in the G1- G10 questionnaire for women who work in the health sector and the effect of job is on social relations.

**Table 8.** Overall Satisfaction Scale Multiple Reliability Analysis Table Value

Cronbach's Alpha	N of Items
0.695	4

According to Table 8, Cronbach's alpha value was calculated for the general satisfaction multi-scale of subcontracted women in the health sector by  $\alpha=0.695>0.60$  in H1\_1, H1\_4, H1\_5, H1\_9 question group, the scale is highly reliable.

### Validity Analysis

The validity analysis results of the study are given in Table 9.

**Table 9.** Factor Analysis of the Questionnaire on Living Conditions of Subcontracted Women in the Health Sector Factor Analysis, KMO Value and Bartlett Test Result

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.735
Bartlett's Test of Sphericity	Approx. Chi-Square	2984.159
	df	820
	Sig.	.000

According to Table 9, Kaiser-Meyer-Olkin sampling qualification value was 0.735, Bartlett's sphericity test ki square value was 2984.159, the degree of freedom was 820,  $p = 0.000 < 0.05$ . Kaiser-Meyer-Olkin is an indicator that the sample size of the data is sufficient if the sampling adequacy statistic is above 0.50. This form is also very good according to KMO value 0.735 according to Table 10. Bartlett's Sphericity value less than 0.05 indicates that the factor can be subtracted from the correlation matrix. In this case, it is determined that the distribution is normal.

**Table 10.** "Job Satisfaction and Social Relationship" According to Participants' Educational Condition Variable Variance Analysis Test Result

		Sum of Squares	Sd	Squares Average	F	p	Significant Difference
Job Satisfaction Scale	Intergrup	5,071	4	1,268	2,5 30	,0 42	Available
	Intragrup	97,72	19	,501			
	Total	102,7	19				
		98	9				
Effect of Work on Social Relations Scale	Intergrup	12,91	4	3,229	8,9 95	,0 00	Available
	Intragrup	70,00	19	,359			
	Total	82,92	19				
		2	9				

According to Table 10, statistically significant difference was found between participants' education status and "job subscale"  $p = 0.000 < 0.05$  it was also found that there was a statistically significant difference in the level of "job satisfaction subscale"  $p = 0.042 < 0.05$  according to the educational status. In this context, it is possible to say that women workers who work in subcontracted jobs, which are often preferred by women with low educational levels, have an abstinent structure.

**Table 11.** According to the Variable of the Individual Average Monthly Income of the Participants, Variance of the Negative Effects on the Living Conditions of the Work

		Sum of Squares	Sd	Squar es Average	F	p	Significa nt Difference
Negative Effects on the Living Conditions of the Work	Intergrup	6,897	4	1,724			
	Intragrup	108,3	19	,556	3,102	,017	Available
	Total	115,2	19				
		72	9				
Going on a Holiday, Food, Outside Eating, Life Condition Scale	Intergrup	2,897	4	,724			
	Intragrup	29,36	19	,151	4,810	,001	Available
	Total	32,26	19				
		2	9				

According to Table 11, participants' statistically significant differences were found to be statistically significant with respect to the personal income levels of "work life conditions negative impact subscale"  $p = 0.017 < 0.05$ . In this context, it has been found that participants in the low-income-based subcontracting workforce have severe working conditions. However, it was found that participants had a statistically significant difference with respect to the average monthly personal income,  $p = 0.001 < 0.05$ . Even though low-income employees offer subcontracting work, they are not able to buy some things, for example, they can eat a meal consisting of meat, poultry and fish every two days, knowing or eating out together with their families can not be met.

**Table 12.** Analysis of Variance Analysis of Participants by Monthly Income Level Variable of All Households Average

		Sum of Squares	Sd	Squar es Average	F	p	Significa nt Difference
Negati ve Effects on the Living Conditions of the Work	Intergrup	13,15	6	2,192			
	Intragrup	102,1	19	,529	4,144	,001	Available
	Total	115,2	19				
		72	9				
Effect of Work on Social Relations Scale	Intergrup	7,188	6	1,198			
	Intragrup	75,73	19	,392	3,053	,007	Available
	Total	82,92	19				
		2	9				
Genera l Satisfaction Multi Scale	Intergrup	14,11	6	2,353			
	Intragrup	112,3	19	,582	4,041	,001	Available
		76	3				

## Subcontract Work and A Survey on the Quality of Life

		Total	126,4	19					
		92	9						
Life Satisfaction Scale	up	Interagro	32,79	6	5,465				
		Intragro	173,2	19	,898	6,08	,00	Available	
	up	Intragro	84	3	7	0			
		Total	206,0	19					
		77	9						
Overall satisfaction one-question scale	up	Interagro	15,01	6	2,503				
		Intragro	144,4	19	,748	3,34	,00	Available	
	up	Intragro	03	3	5	4			
		Total	159,4	19					
		20	9						
Going on a Holiday, Food, Outside Eating, Life Condition Scale	up	Interagro	4.593	5	.919				
		Intragro	27.66	19	.143				
	up	Intragro	9	4	0	6.44	,00	Available	
		Total	32.26	19	0	0			
		2	9						

Taking Table 12 into consideration, it can be stated that those who work as information processing employee or secretaries with higher education level among subcontracted women workers have higher living standards. However, in general, a significant number of female workers have stated that living conditions can not meet their ideals.

**Table 13.** Participants are Obligated to Pay Regularly or Irregularly According to the Institutions/Persons who are in Dept, the Balance of a Work Life Variance Analysis Test Result

		Sum of Squares	Sd	Squar es Average	F	p	Significa nt Difference
Work- Life Balance	up	Interagro 5	11,32	4	2,831		
	up	Intragro 50	197,5	19	1,013	2,7	,0
		Total	208,8	19	95	27	Available
			75	9			

According to Table 13, "Work life balance effect on living conditions scale"  $p=0.027<0.05$  statistically were found to be significantly different. In this context, 93 per cent of subcontracted women workers who have difficulties in subsistence have stated that they have to work to sustain their lives with credit card or credit debt.

**Table 14.** The Result of the Variance Analysis Test According to the Variable of the Place where the Participants Live

		Sum of Squares	Sd	Squares Average	F	p	Significa nt Difference
Negative Effects on the Living Conditions of the Work	Interagro	6,349	5	1,270			
	Intragro	108,9	19	,561	2,2	,0	Available
	Total	115,2	19		62	49	
		23	4				
Overall satisfaction one-question scale	Interagro	8,596	5	1,719			
	Intragro	117,8	19	,608	2,8	,0	Available
	Total	126,4	19		29	17	
		96	4				
Life Satisfaction Scale	Interagro	16,51	5	3,303			
	Intragro	189,5	19	,977	3,3	,0	Available
	Total	206,0	19		80	06	
		61	4				
		77	9				

According to Table 14, according to the place where the participants live, there is a negative effect on living conditions of the worker statistically significant difference with the scale of  $p=0.049<0.05$  was found. Overall satisfaction was found to be statistically significant with the one-question scale  $p=0.017<0.05$ . Statistically significant differences were found in the "life satisfaction scale"  $p=0.006<0.05$ . In this context, according to Table 15, it is seen that the housing and living conditions of female workers directly affect the overall satisfaction and happiness levels.

### Correlation Analysis

The relationship between the scales used in the study was examined by Pearson correlation analysis. The analysis results are given in Table 15.

**Table 15.** Correlation Analysis and Correlation Chart of Subcategories of Life Conditions of Subcontracted Worker Women

		Social Security Life Condition Scale	Job Satisfaction Scale	Negative Effects on the Living Conditions of the Work	Effect of Work on Social Relations Scale	Work-Life Balance Scale	General Satisfaction Multi Scale	Life Satisfaction Scale	Overall satisfaction one-question scale	Health Living Conditions Scale
Job Satisfaction Scale	r	.415**								
	p	.000								
Negative Effects on the Living Conditions of the Work	r	.175*	.138							
	p	.013	.052							
Effect of Work on Social Relations Scale	r	-.144*	-.175*	-.110						
	p	.042	.013	.119						
Work-Life Balance Scale	r	-.097	-.115	-.213**	.034					
	p	.174	.106	.002	.631					
General Satisfaction Multi Scale	r	.456**	.518**	.244**	-.276**	-.063				
	p	.000	.000	.001	.000	.376				
Life Satisfaction Scale	r	.189**	.311**	.172*	-.282**	-.058	.466**			
	p	.007	.000	.015	.000	.414	.000			
Overall satisfaction one-question scale	r	-.179*	-.255**	-.167*	.222**	.055	-.422**	-.415**		
	p	.011	.000	.018	.002	.436	.000	.000		
Health Living Conditions Scale	r	-.198**	-.143*	-.123	.134	.039	-.238**	-.114	.158*	
	p	.005	.043	.083	.058	.584	.001	.108	.025	
Going on a Holiday, Food, Outside Eating, Life Condition Scale	r	-.199**	-.177*	-.162*	.449**	.074	-.317**	-.459**	.143*	.036
	p	.005	.012	.022	.000	.298	.000	.000	.044	.612

Life subscales of subcontracted worker women were analyzed with Pearson-Correlation test at  $p=0.05$  significance level. Generally, according to Table 15, a statistically significant relationship was found between job satisfaction scale value  $p=0.00<0.005$  and "general satisfaction multilevel scale". The relationship was positively linearly determined with  $r=0.518$  Pearson-correlation value. In this context, there is a direct relationship between the working conditions of women workers and their satisfaction with their lives.

## 6. Conclusion

The study examined the general qualifications of subcontract work and the results of a survey conducted with 200 women workers working through subcontracting in the public health sector. In the context of this study, there are various data that allow women workers to be assessed in terms of their demographic status, income and health status, housing and living conditions, work-life balance, social relations and overall satisfaction and happiness levels.

In this context, it can be concluded that factors such as income, indebtedness, working conditions, education, housing and living conditions, general satisfaction and happiness levels that women have achieved on the quality of life of the women are influenced according to the results obtained in general. Nevertheless, it seems that there are negative conditions in terms of the elements determining the quality of life of the female workers in terms of objective. From this point of view, it is noteworthy that the participants have significant problems with respect to the income they have gained in particular for their work and all household income, and that they have severe working conditions, which is considered to have a negative impact on quality of life.

Nevertheless, women workers often resort to financial instruments such as credit cards or loans to rescue their lives, and they seem to have lived on borrowing. It is possible to conclude that this leads to insecurity and uncertainty regarding the future. Nevertheless, it can be said that the situation in which the female workers are involved in terms of the objective living conditions is influential on their perceptions of subjective life. However, despite the negative picture, it can be assumed that 84.5% of female workers are generally convinced that they feel happy and that they are based on the general characteristics of the society in which they live.

## 7. References

Canbey Özgüler, V. (2013). *Avrupa Birliği ve Türkiye İşgücü Piyasalarının Karşılaştırmalı Analizi [Comparative Analysis of the Labor Market of European Union and Turkey]*. İstanbul: Cinius Yayınları.



- Ciğerci Ulukan, N., & Özmen Yılmaz, D. (2016). Kamu Sağlık Sektöründe Çalışan Taşeron Kadın İşçiler: Samsun ve Ordu İli Örneği [Subcontracted Woman Workers in Public Health Sector: Samsun and Ordu Case]. *Çalışma ve Toplum Dergisi [Labour and Society]*, 1, 87–114.
- Erdut, T. (2005). İşgücü Piyasasında Enformelleşme ve Kadın İşgücü [Informalization and Female Labour in the Labour Market]. *Çalışma ve Toplum Dergisi [Labour and Society]*, 3, 11-49.
- Gökbayrak, Ş. (2003). *Belediyeler, Özelleştirme ve Çalışma İlişkileri [Municipalities, Privatization and Labour Relations]*. Ankara: Mülkiyeliler Birliği Vakfı Yayınları.
- Gökbayrak, Ş. (2008). Kamusal Hizmetleri Özelleştirme Aracı Olarak Taşeronlaşma ve Çalışma İlişkileri: Kentsel Hizmetlerin Özelleştirilmesinden Kesitler [Subcontracting and Labor Relations as a Tool for Privatization of Public Services: Cross-Sections of Privatization of Urban Services]. *TES-İŞ Dergisi*, 2, 115-121.
- Görmüş, A. (2013). Kamu Kurumlarında Hizmet Alımı Yoluyla İstihdam Edilenlerin Kıdem Tazminatı Sorunu [Severance Pay Issue of Employees Hired Through Service Purchasing in Public Establishments]. *Çalışma ve Toplum Dergisi [Labour and Society]*, 3, 141-172.
- Güzel, A. (2004). İş Yasasına Göre Alt İşveren Kavramı ve Asıl İşveren-Alt İşveren İlişkisinin Sınırları [Sub-employer's Concept by Labor Law and Limits of Principal Employer-Sub-Employer Relationship]. *Çalışma ve Toplum Dergisi [Labour and Society]*, 1, 31-65.
- İş Kanunu [Labor Law]. (2003). *T.C. Resmi Gazete*, 25134, 10.06.2003.
- Karadeniz, O. (2011). Türkiye’de Atipik Çalışan Kadınlar ve Yaygın Sosyal Güvencesizlik [Atypical Working Women and Social Precarity common in Turkey]. *Çalışma ve Toplum Dergisi [Labour and Society]*, 2, 83-127.
- Kaya, G. (2015). Kamudaki Taşeron İşçiler Üzerine Bir Alan Araştırması: Adıyaman Örneği [A Field Research On The Subcontracted Workers In The Public Sector: Adıyaman Sample]. *Electronic Journal of Social Sciences*, 14(55), 257–267.
- Leschke, J., & Watt, A. (2008). *Job Quality in Europe (WP 2008.07)*. Brussels: European Trade Union Institute for Research, Education and Health and Safety (ETUI-REHS).
- Özkal Sayan, İ. (2016). Türkiye’de Kamu Personel Sisteminde Sorun Alanları ve Çözüm Önerileri [Problem Areas of the Public Personnel System in Turkey and Solution Recommendations]. *Ankara Üniversitesi SBF Dergisi [Ankara University SBF Journal]*, 71(3), 669–691.
- Parlak, Z., & Özdemir, S. (2011). Esneklik Kavramı ve Emek Piyasalarında Esneklik [Concept of Flexibility And Flexibility in the Labour Market]. *Sosyal Siyaset Konferansları Dergisi [Journal of Social Policy Conferences]*, 60, 1–60.
- Sapancalı, F. (2009). *Toplumsal Açidan Yaşam Kalitesi [Quality of Life from a Social Perspective]*. İzmir: Altın Nokta Basım Yayın.
- Smith, J. (2010). *Imperialism and the Globalization of Production*. Retrieved at December 25, 2017, from <https://thenextrecession.files.wordpress.com/2012/12/imperialism-the-globalisation-of-production.pdf>
- Standing, G. (2014). *Prekarya: Yeni Tehlikeli Sınıf [Prekarya: The New Dangerous Class]*. Çev. Ergin Bulut. İstanbul: İletişim Yayınları.
- Şenses, F. (2001). *Küreselleşmenin Öteki Yüzü: Yoksulluk [The Other Face of Globalization: Poverty]*. İstanbul: İletişim Yayınları.
- T.C. Kalkınma Bakanlığı (Republic of Turkey Ministry of Development). (2014). *Onuncu Kalkınma Planı 2014-2018 (10th Development Plan (2014-2018). İstihdam ve Çalışma Hayatı Özel İhtisas Komisyonu Raporu 2023*. Retrieved at December 25, 2017, from <http://www.kalkinma.gov.tr/Lists/zet%20ihtisas%20Komisyonu%20Raporlar/Attachments/235/%C4%B0stihdam%20ve%20%C3%87al%C4%B1%C5%9Fma%20Hayat%C4%B1%20%C3%96%C4%B0K%20Raporu.pdf>
- Temiz, H. E. (2004). *Küreselleşmenin Sosyal Boyutları ve Türkiye Açısından Etkileri [Social Dimensions of Globalization and its Effects in terms of Turkey]*. İzmir: Birleşik Metal İşçileri Sendikası Yayını.
- Tiyek, R. (2014). Devletin Endüstri İlişkilerindeki Rolü ve Taşeron Çalışma [The Role of State in Industrial Relations and Subcontract Work]. *Emek ve Toplum Dergisi [Journal of Labour and Society]*, 3(7), 8-31.

Torlak, S. E., & Savaş Yavuzçehre, P. (2008). Denizli Kent Yoksullarının Yaşam Kalitesi Üzerine Bir İnceleme [A Review on the Quality of Life of the Denizli City Poor]. *Çağdaş Yerel Yönetimler Dergisi* [Contemporary Local Administrations Journal], 17(2), 23–44.

Urhan, B., & Etiler, N. (2011). Sağlık Sektöründe Kadın Emeginin Toplumsal Cinsiyet Açısından Analizi [The Gender Analysis of Women's Labour in Health Sector]. *Çalışma ve Toplum Dergisi* [Labour and Society], 2, 191–216.

Yılmaz, E. (2012). *Yaşam Kalitesi Temelinde Toplumsal Şiddet, Göç ve Yoksulluğun İncelenmesi* [Analysis of Social Violence, Migration and Poverty on the Basis of Quality of Life]. Konya: Konya İl Sosyal Yardımlaşma ve Dayanışma Vakfı Başkanlığı Projesi.

Yücesan Özdemir, G. (2010). Despotik Emek Rejimi Olarak Taşeron Çalışma [Subcontracting as Despotic Labor Regime]. *Çalışma ve Toplum Dergisi* [Labour and Society], 4, 35–50.



# International Standards of Budget Transparency: An Evaluation of the Government Budget of Turkey

Ayşe Atilgan Yasa, I. Aytac Kadioglu

## 1. Introduction

International standards of international organisations determine various topics with regards to the effective use of public resources. Fiscal transparency is one of the main tools for the optimum use of public resources whose influence is sufficiently investigated in regard to corruption and accountability. However, budget transparency is largely overlooked especially on the government budget of Turkey in the existing literature. This study aims to close this gap by analysing how international standards of international organisations have been reflected in Turkey's budget transparency.

Transparency in budget illustrates the fiscal data of a country. When budget transparency is achieved, the risk factor of that country's internal and external markets will decrease. At the national level, citizens who believe in budget transparency, trust in the government will affect positively their willingness to pay tax. In this context, if this condition is not met sufficiently, this risk will boost black economy of that country. At the international level, international organisations such as International Monetary Fund (IMF), the Economic Business Association and Development Organisation (OECD), the World Bank (WB), the United Nations (UN) aim member countries to meet several criteria in order to achieve budget transparency together with other economic and fiscal goals. If member countries do not meet the international organisations' criteria, they are more likely to face with some risks such as, borrowing cost, the fall of credibility score and the decrease of foreign investment.

This study firstly describes the terms fiscal and budget transparency and their components. Secondly, it discusses international standards of international organisations which operate for the sake of budget transparency. Thirdly, it evaluates the current situation of Turkey's budget transparency compared to the standards of international organisations. Finally, the paper recommends possible solution ways to improve the application of these standards in Turkey.

## 2. Fiscal and Budget Transparency

The terms fiscal and budget transparency influence to reach economic and fiscal targets such as, economic growth and development, and fair income distribution. International organisations have paid more attention to fiscal transparency in recent years due to economic and financial crises that affect international financial activities closely.

The scope of fiscal transparency refers to several important concepts, for instance, 'transparency in public expenditure' and 'good governance' (Kopits and Craig, 1998). It can be said that when public expenditure of a government is not clearly stated and some problems occur with mutuality in the use of economic and political authorities, it is difficult to mention fiscal transparency. It is possible to find wastage and corruption in public expenditure, inefficiency in resource allocation, problems in the tax system, informal economy and financial crises in a system without fiscal transparency.

Fiscal transparency requires to provide information to the public about the structure and functions of governments which determine financial activities in the past, present and future about government accounts, its policies and outcomes (IMF, 2015). Therefore, fiscal transparency is a fundamental indicator that leads to build confidence at public financial management. When transparency is implemented, the risk factor of which occurs internal and external markets of countries will decrease. According to Karataş (2005), this decline is in line with paid interest and will result in providing more fund to primary payments.

There are four conditions to achieve fiscal transparency. Firstly, more transparent methods require more information and less documentation if other conditions are constant. This situation enables openness and makes financial control easier. Secondly, transparency boosts the possibility of independent verification and inquiry. Thirdly, the language of fiscal documents needs to be clear and

understandable. Finally, to make an order of strategic aims for the use of public resources increases fiscal transparency (Alt and Lassen, 2003). These conditions determine transparency regarding economic and financial developments.

Government budget is a document which sets out information about plans, programmes and general policies. It can be said that the more accountable and transparent the budgets are prepared; the more participatory democracy can be achieved. Therefore, as Gaventa and Valderrama (1999) argue, budget transparency is accompanied by a participatory and accountable budget process. Indeed, it is not always possible to evaluate political goals of non-transparent, inaccessible and unrealistic budgets. Budget transparency describes feedback on public revenues, public expenditures and allocations, and enables citizens to access detailed information easily (Kayalıdere and Mastar Özcan, 2014).

Ensuring transparency in budgets is a prerequisite to achieve macro-economic stability and effective governance. Hence, budget transparency is a significant tool for providing fiscal discipline, allocating resources according to strategic priorities. This can be achieved through detailed explanation of fiscal aims and priorities, an open discussion environment, the implementation and transparency of financial control and the publicity of the results of performance and financial endeavours in the budget proposal (Ramkumar and Shapiro, 2011). In addition, the income and expenditures of all public institutions and organisations should be seen and monitored holistically. It also requires to disclose budget-related data systematically and at predetermined times.

### **3. The Role of International Organisations to Improve Budget Transparency**

International organisations such as the International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD) and the World Bank (WB), which aim economic growth and stabilisation at the national and international level, have a significant impact on the member countries with regards to budget transparency that plays a crucial role in fiscal reforms of a country, they want to achieve budget and fiscal transparency as well as other economic and financial goals by setting out a number of criteria.

These institutions and agencies have published guidelines to encourage budget transparency specifically and fiscal transparency in general. In this context, this study analyses several international organisations that aim to improve budget transparency. These organisations are the International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), the World Bank (WB), the United Nations (UN) and the International Transparency (IT).

#### **3.1. International Monetary Fund (IMF)**

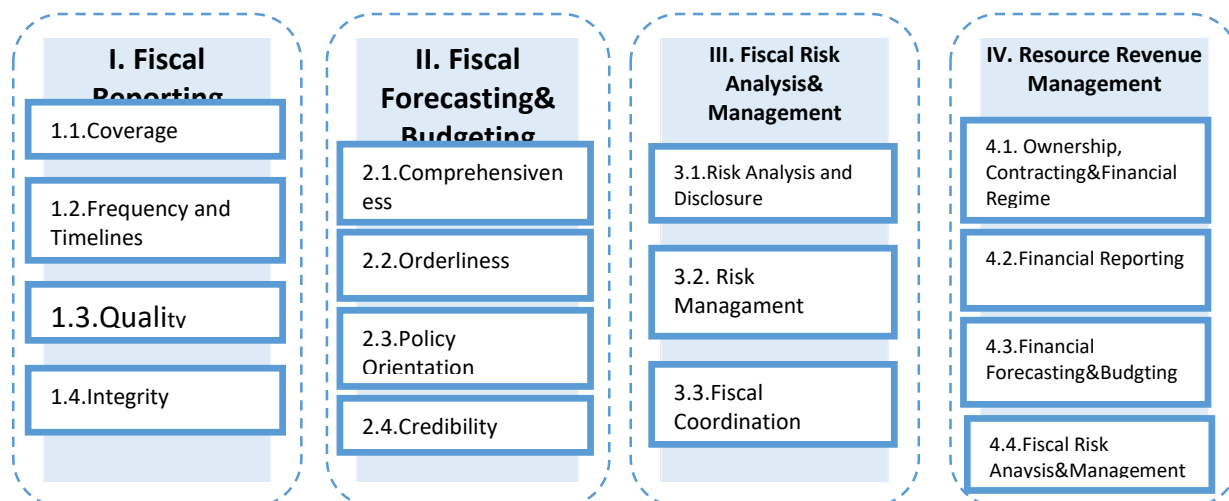
The IMF prepares a variety of documents, including budget and fiscal transparency, and the requirements for complementing them and implementing regulations, for purposes such as the planning, implementation and analysis of the macroeconomic and financial policies of member countries. The documents of the IMF consist of the 'Good Practices Regulation on Financial Transparency', 'A Handbook on Financial Transparency' and 'A Guide on the Transparency of Revenues'. These documents contain the principles that are set out in the preparation of the budget transparency, the application and the reporting process of a budget (T.C. Maliye Bakanlığı, 2002). The principles are below:

- Budget documents should specify fiscal policy objectives, macro-economic framework, budget-based policy fundamentals and predictable basic financial risks.
- Information about budget should be written in a way that facilitates policy analysis and promotes accountability.
- The methods for the fulfilment, supervision and collection of the estimated expenditure should be clearly defined.
- Legislative body and the public should be regularly reported about financial reports.

These principles determine the framework of budget documents which present principles for a fair budget process and its implications. Besides, the IMF prioritises the goal of determining international fiscal transparency standards when conducting relevant regulations. There are a few major regulations conducted by the IMF. The first document 'Code of Good Practices of Fiscal Transparency' helps define

the principles and practices that clearly demonstrate financial and structural framework. These standards were lastly updated in 2007 for the sake of configuration with globalised fiscal and economic structure of member countries. The standards in this regulation are: 'Clarity of Roles and Responsibilities', 'Open Budget Process', 'Public Availability of Information' and 'Assurances of Integrity' (IMF, 2007).

The IMF's second document 'A Manual on Fiscal Transparency' leads to the member countries for budget transparency by providing objective principles and methods. The third document 'A Guide on Resource Revenue Transparency', identifies a source of problems that are rarely encountered by countries that obtain a significant portion of their income especially from oil and mining sources (Granickas, 2013).



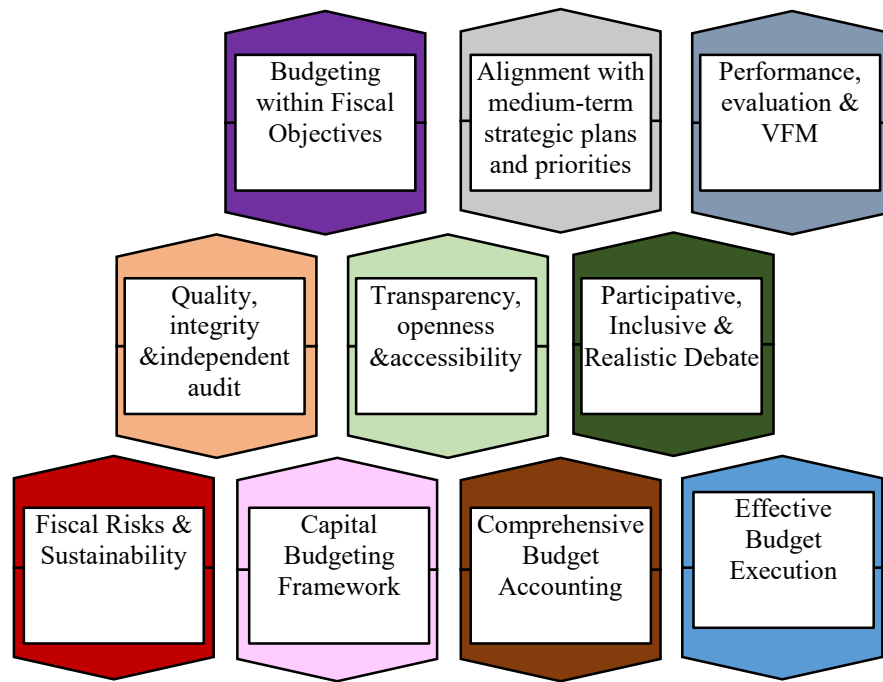
**Figure 1: Four Pillars of the IMF Fiscal Transparency Code (OECD, 2017)**

Figure 1 indicates four general conditions to specify fiscal transparency. These conditions include important criteria for not only budget transparency but also fiscal transparency which can be achieved when countries meet these criteria. For example, while fiscal reporting addresses integrity of reports and the necessity to have specific timelines, resource management identifies the condition of contacting and financial reports which lead to fiscal transparency.

### 3.2. Organisation for Economic Co-operation and Development (OECD)

OECD has also published reports about fiscal transparency. The most significant one is 'Best Practices Guidelines on Budget Transparency' which is a guideline designed as an advisory tool to increase the budget transparency levels of the OECD member states and others (Granickas, 2013).

This guideline is based on the experiences of member countries which consists of three sections. While the first section contains the financial report which provides an overview of the overall framework for fiscal regulations of a country, the second section describes the specific definitions that will be included in the report such as economic assumptions and tax expenditures. Finally, the third section describes consistency, control and recognition, consisting of recognition methods, systems and responsibility (Acar, 2007).



**Figure 2: The OECD's Ten Budget Principles (OECD, 2017)**

Figure 2 shows the budget principles of the OECD for budget transparency. According to these principles, budgeting in the framework of fiscal targets, ordering the framework of mid-term strategic plans, performance-based budgeting, truthfulness, integrity and independent auditing, transparency, accountability, participation, inclusiveness, sustainability and centralised budgeting should be ensured. These principles are also designed to be of relevance also to budgeting at the local, national and regional level.

### 3.3. The World Bank (WB)

The budget principles of the WB embody significant principles for determining international standards. The WB's report entitled 'Basic Principles of Good Budgeting and Financial Management' outlines fiscal management and budgeting principles. However, this is a study containing the principles of fiscal transparency instead of budget transparency. This report focuses on the following concepts related to budget transparency:

- Budget Scope and Discipline
- Legalisation (Legitimacy)
- Flexibility
- Predictability
- Evaluability
- Accuracy
- Information
- Responsibility

In an environment where the fiscal transparency is achieved and these objectives of the WB are fulfilled, two types of targets can be achieved. In the long term, it is necessary to ensure the financial sustainability of the given countries together with the data produced by the world system (Shiriner, 2008). In the short term, it can be possible to produce sufficient non-budgetary activities and achievable obligations for an effective budget (Shiriner, 2008). Thus, the good budgeting and financial management principles can only be fully achieved when fiscal transparency is fulfilled.

### 3.4. United Nations (UN)

The UN has not conducted a study directly on budget transparency, but it has included regulations on the documented issue, 'Implementation of the International Code of Conduct for Public Officials'. The main objective of this document is to ensure that public employees to behave in accordance with the standards they are obliged to fulfill their duties and, most importantly, to comply with ethical values in the use of public resources and to improve their accountability (UNESCO, 2002).

The UN signed the following agreements on the prevention of corruption in the light of the work titled 'Implementation of the International Code of Conduct for Public Officials'. Thereby, the following agreements were signed to ensure budget transparency:

- United Nations Convention Against Corruption
- Action Against Corruption: International Code of Conduct for Officials
- Declaration Action Against Corruption and Bribery in International Commercial Transactions
- Declaration of Basic Principles of Justice for Victims of Crime and Abuse of Power
- Global Programme Against Corruption: An Outline for Action

### 3.5. Transparency International (TI)

The major goal of the TI is to prevent corruption, improve transparency, accountability-honesty, and openness at all levels of society. The TI leads to the preparation of multilateral contracts for setting international fiscal transparency and budget transparency criteria. It also follows the practices of governments, institutions and non-governmental organisations.

Within the framework of the 'Lima Declaration' of 1997 under the framework of high control standards, several criteria were emphasised. These criteria provide transparency in all areas including public procurement, to secure responsible citizens who report corruption issues through law and their applications, and to support approaches which require greater accountability.

The TI has several other studies including the Corruption Perceptions Index (CPI), the Bribe Payers Index (BPI), the Global Corruption Barometer (GCB), and the Business Principles for Countering Bribery, which allow countries to measure and assess transparency levels. In addition, the TI's Integrity Pacts, The Global Corruption Report and National Integrity Systems Sourcebook address other methods for measuring and transparency.

## 4. The International Standards for Budget Transparency: Applications in Turkey

This section initially Turkey's Five Year Development Plan of 2000. Then it assesses which of these deficiencies have been eliminated since 2006.

Budget transparency in Turkey is a significant and under-developed field which has been revised in the 2000s. Particularly, the Five-Year Development Plan of 2000 contains the report 'Restructuring Public Financial Management and Fiscal Transparency Special Commission Report'. According to this report, major requirements for improving budget transparency in Turkey were as follows:

- Out of budget public activities were not presented at the Parliament together with parliamentary public activities which were not fully presented with the budget text.
- The scope of the budget in Turkey was very narrow. This means that only very small part of public resources was being used and controlled through the approval of the Parliament.
- The semi-fiscal activities of the government were not disclosed.
- Past and future two-year budgets were not presented to the Parliament with the current year budget.
- Possible commitments of the governments, tax expenditures and public banks, Government Business Enterprises, relationships with Central Banks, and semi-fiscal activities were not published with the budget proposal.
- Governments did not disclose their views in the context of fiscal sustainability and their work in this area together with the budget proposal.
- Fiscal risks caused by deviations in assumptions and forecasts, and possible implications of commitments were not reported.



- Duties and responsibilities were in conflict which prevent administrative responsibilities to be evaluated.
- Classification of transactions did not allow the assessment of governmental responsibilities in the collection and use of public funds.
- Budgetary negotiations did not include general budgetary equilibrium as well as different budget deficits which would allow economic analysis.
- There were no documents showing accounting standards. As the accounting system was only cash based, it caused problems in the evaluation of the economy.
- Understanding tax laws created some problems and these laws changed frequently. In addition, financial legislation often become law without sufficient discussion, even without the knowledge of the relevant institutions. It was necessary to make it possible to discuss draft laws of these laws on various platforms.
- The scope of the result calculations was very limited just like the consolidated budget. Public activities could not be evaluated as a whole. External auditing of public funds was carried out by different audit institutions.

It can be said that many of the above deficiencies have been eliminated through several reforms in recent years. The major reforms: Closure of most of the funds in and out of the budget; the new Analytic Budget Code System, which is classified in accordance with international standards; termination of special income-payment applications; the System of Say2000i and Budget Management and Information System; Public procurement Law; the Law on the Arrangement of Public Finance and Debt Management; efforts to remove non-budgetary provisions from the Budget Act; acquisition-based accounting system in general submissions and the adoption of international applications in reporting systems; implementation of the Official Statistics Program in the context of preventing information pollution and ensuring certain standards; within the framework of Public Financial Management and Control Law No. 5018; expansion of budget coverage to include central government; social security institutions and local governments; clarification of responsibilities; transition to a mid-term and performance-based budgeting system based on mid-term programmes and strategic plans; provision of an effective internal control system; accrual based accounting system; financial reporting obligations; the implementation of contemporary applications such as annual reports from the beginning of 2006 and the construction of all of them on the basis of fiscal transparency and accountability.

Budget transparency in Turkey has gained importance through the new public fiscal management. The 2000 and 2001 economic crises are the cost of sufficient budget transparency in Turkey. Many legal and administrative arrangements have been made since the beginning of the 2000s which are initiated through the restructuring public financial management.

The term budget transparency forms the foundation of fiscal reform and public administration approach. This term is included in the 7th and 13th articles of the Public Financial Management and Control Law No. 5018 of 2006 under the 'Code of Good Practices on Fiscal Transparency' of the IMF.

In the Law No. 5018, the concept of 'fiscal transparency' has been defined in terms of accountability, strategic planning and performance-based budgeting within the general framework of the use of public resources. Fiscal transparency is defined as 'informing the public at the time of public disclosure in order to ensure that all public resources are obtained and used' (Article 50, art. 7). In this direction,

- a) Clear definition of duties, authority and responsibilities,*
- b) The preparation of government policies, development plans, annual programs, strategic plans and budgets, negotiations with authorised bodies, implementation and their results, and reports which are open and accessible to the public,*
- c) Public announcement of incentives and subsidies provided by public administrations within the scope of general government within a period up to one year,*
- d) The corresponding law contains 'the public accounts to be established in accordance with a standard accounting system and an accounting system that is compatible with the generally accepted accounting principles'. Besides, public administrations have been held responsible for making the necessary*

*arrangements and measures for obtaining fiscal transparency and it can be followed by the Ministry of Finance.”*

It is understood that studies on budget transparency which are prepared by the IMF and civil initiatives had been detected at a very low level before the Law of Public Fiscal Management and Control No. 5018.

Budget transparency is one of the important means of making the country more accountable and responsible to the public. While Turkey is on the list of the top twenty biggest economies of the world, it is number sixty-four on the list of Corruption and Transparency Index. The results and the budget deficit index remaining at the border in 44 points for budget transparency demonstrate that Turkey should focus on transparency issues.

## 5. Conclusion

Since the 1980s, efforts to re-structure public expenditure management have been largely discussed as a result of the income-expenditure imbalances of many countries of the world. These studies have significantly changed the views about the budget, as well as brought about budgetary innovations.

The lack of transparency-based budget transparency in public expenditures by countries can pose economic, fiscal and political risks. Institutions such as the IMF, OECD, WB, UN and TI have made various analyses in terms of the sustainability of fiscal structures of countries. They have begun to refer these standards to countries that have non-transparent budgets, standardise successful country practices in order to resolve similar problems. For example, Performans-based Budgeting System can function without any issues in public administration that is directly related to budget transparency in the context of modern budgeting. If the public administrations reflect major source allocations realistically, budget figures can be more realistic with regards to trust in the Ministry of Finance of Turkey on the basis of programmes and projects. However, budget transparency should be developed not only during the budget preparation phase, but also during the implementation and reporting phases. Until adequate financial discipline is provided and new internal missions charged to public administrations without strong internal control mechanisms, and education and technological infrastructure are developed, it is not possible for public administrations to reach their new and expected results.

Lastly, there are several factors which affect participatory budget positively, namely, to be more open to the language of the budget report submitted to the Turkish Parliament, budget implementation results of some associations such as, non-governmental organisations and universities, and the adoption of the proposals of these groups. However, it is clear that not to disclose to the public fiscal and economic revisions in Turkey results in the lack of improvement in budgeting approach and budget transparency. Indeed, the reasons behind the transparency index include the difficulties in applying the laws, and the increase in applications such as the 'Bag Law'. This is the case as issued in the Bag Law of 2010 and 2011. For example, if taxpayers pay their tax liability, the government gives up tax penalties and the related increase in late payments. This means to give up some of the budget revenues. As the practices of tax amnesty increases tax avoidance and tax evasion, this increases the tendency to expand the black economy in Turkey and undermines budget transparency.

## 6. References

- Acar Ş.B. (2007). İyi Uygulama Örnekleri Çerçevesinde Kamu Yönetiminde Mali Saydamlık ve Kamuoyu Denetiminin Etkinleştirilmesi, *Devlet Bütçe Uzmanlığı Araştırma Raporu*, T.C. Maliye Bakanlığı Bütçe ve Mali Kontrol Genel Müdürlüğü, Ankara.
- Alt. J. E. And Lassen D. D. (2003). Fiscal Transparency and Fiscal Policy Outcomes in OECD Countries. *Economic Policy Research Unit*. Institute of Economics University of Copenhagen. Denmark, 1-43.
- Bakkal H. ve Kasımoğlu A. (2015). Bütçe Sürecinde Mali Saydamlık ve Hesap Verebilirliğin Önemi. *Ekonomik Yorumlar*. 52 (599), 37-52.
- Code of Good Practices on Fiscal Transparency (2007). International Monetary Fund, <http://www.imf.org/external/np/pp/2007/eng/051507c.pdf>

- Federal Register (2013). 2012 Fiscal Transparency Report. 78(42).
- Federal Register (2014). 2013 Fiscal Transparency Report.79(58).
- Gaventa J. and Valderrama C. (1999). Participation, Citizenship and Local Governance. *Workshop on Strengthening Participation in Local Governance.* Institute of Development Studies.
- Granickas K. (2013). Fiscal Transparency and Open Government Data. *European Public Sector Information Platform Topic Report No.2013/11.* 1-26.
- IMF (2015). How Does the IMF Encourage Greater Fiscal Transparency?. IMF Factsheet. <http://www.imf.org/external/np/exr/facts/pdf/fiscal.pdf>.
- International Budget Project (2018), <https://www.internationalbudget.org>
- Kamu Mali Yönetiminin Yeniden Yapılandırılması ve Mali Saydamlık Özel İhtisas Komisyonu Raporu, <http://www.sp.gov.tr/upload/xSpKutuphane/files/S1oOm+oik535.pdf>
- Karataş, M. (2005). Kamu Mali Yönetiminde Yeniden Yapılanma Aracı Olarak Hesap Verme Sorumluluğu ve Saydamlık. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi. 10(2), 291-305.
- Kayalıdere G. ve Mastar Özcan P. (2014). Bütçe Saydamlığı ve Ekonomik Özgürlüğün Yolsuzluk Üzerindeki Etkisi. *Atatürk Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi.* 28(2), 219-234.
- Kopits G. and Craig J. (1988). Transparency in Government Operations. *Occasional Paper* No:158, Washington D.C.
- OECD (2017), “Budget Transparency Toolkit: Practical steps for supporting openness, integrity and accountability in Public Financial Management”, <http://www.oecd.org/gov/budgeting/Budgeting-Transparency-Toolkit.pdf>
- Ramkumar V. and Shapiro I. (2011). Guide to Transparency in Government Budget Reports: Why are Budget Reports Important, and What Should They Include?. *International Budget Partnership*, Washington.
- Şiriner İ. (2008). *Finansal Küreselleşme: Para ve Maliye Politikalarında Dönüşüm.* Eti Yayınları.
- T.C. Maliye Bakanlığı, “Uluslararası Mali Standartlar”, Ankara.
- Tüğen, K. (2015). *Devlet Bütçesi.* Başsaray Matbaası, İzmir.
- United Nations Economic and Social Council (2002). Implementation of the International Code of Conduct for Public Officials. Eleventh Session, Vienna.

# Tax System in the Republic of Kosovo

Azem Duraku

## 1. Introduction

Tax System of a country is a set of laws, rules, norms, procedures and methodologies that become valid by a group of institutions and by the Tax Administration. Thus, the tax system consists of two important elements: tax legislation and Tax and Customs Administration. In a modern country that Kosovo strives to be, citizens are required to pay taxes and other obligations that finance government programs, provide public services, the highest standards of education, welfare, health, social support, law enforcement and overall infrastructure. All of these can be provided and made available only by proper tax collection.

Kosovo has a relatively simple tax system and oriented towards simple regulation, which targets a large tax base and prevents tax evasion. The implementation of the new fiscal package constituted significant amendments in tax legislation, in particular the Law on Value Added Tax, where the new VAT rate is divided into two categories, the standard rate of 18% and the reduced rate of 8 % for certain basic products.

Kosovo's economy suffers from a large tax gap, which mainly is as consequence of the informal economy, as well as tax evasion from businesses and individuals acting contrary with the rules. Non-compliance with tax obligations by the taxpayers causes major problems in tax revenues. The system suffers from a large tax gap, which is defined as the difference between revenues to be collected and factual revenues. Despite the data limitations, this tax gap has been assessed in the latest World Bank report. The results were: VAT gap 34% due to low VAT collection from local suppliers; the PIT gap of 75% and the CIT gap of 17% of the current collection. This is mainly as a result of the large informal sector and the considerable grey economy estimated to be between 7.5% and 18.8%.

When it comes to development of a new tax system in Kosovo, circumstances have imposed to start developing a simple tax system. The devastated economic and public infrastructure, devastated businesses and the difficult social situation of the population, that Kosovo inherited in the post-war period, did not provide real opportunities for a quick building of internal governance structures and consolidation of the economic base and self-financing of budget needs. Based on this, in the first post-war phase, the UNMIK mission has focused mainly on foreign donations as the only sources available to finance budget needs for the functioning of public administration, public sectors, rebuilding and maintaining the infrastructure and public services. Revenue collection is to be largely oriented towards voluntary compliance with the obligations by providing the necessary information and procedures so that taxpayers can meet their tax obligations at the lowest possible cost. In an effort to reach values and public funds, particular attention should be paid to the tax system to be guided by the principle of credibility, transparency, neutrality, service excellence, efficiency, effectiveness and simplicity.

## 2. Methods

The theoretical study of this study was done on the basis of some researches in the field of taxation system that deals and analyses with particular emphasis with the taxation issues, the regulation applicable to regulate this domen.

In accordance with the purpose of the paper, a detailed tax analysis in our country was made based on the data available. The used literature is for the Tax System in Kosovo, and we tried to use the literature of the surrounding countries having the characteristics and similarities with Kosovo.

During this research, I have used the deduction method, as well as the comparative analysis methods. I have used the secondary data received of the IMF, the World Bank, TAK, the Macroeconomic and Fiscal Policy Department (MoF), the Budget Department (MoF), Kosovo Agency of Statistics, and other relevant institutions.

The use of assessment techniques helps to determine how data is collected and processed. All of these lead to determine a more accurate and appropriate approach to taxation, the processing of tables and statistics related to this, taxes that we think have served the purpose of this paper.

Unlike the cost-benefit analysis, though the cost-effectiveness analysis and comparison method is aimed to determine alternative programs that at lower cost ensure the achievement of a previously defined goal or set of goals that are mutually complementary by collecting revenues that are mainly oriented towards the voluntary compliance with the obligations by providing the necessary information and procedures so that taxpayers can pay their tax obligations at the lowest possible cost.

### 3. Kosovo Tax System

When it comes to building a new tax system in Kosovo, circumstances imposed to start developing a simple tax system. The devastated economic and public infrastructure, devastated businesses and the difficult social situation of the population, that Kosovo inherited in the post-war period, did not provide real opportunities for a quick building of internal governance structures and consolidation of the economic base and self-financing of budget needs.

It was initially based on sales tax, at a rate of 15%, which was replaced by VAT on 1 July 2001, also having a rate of 15%, and applies to all imports and domestic products to companies with a gross turnover over € 100,000; Presumptive Tax at a rate of 3% in gross turnover; service tax, with a 10% rate and customs rate of 10%. Also, excises are applied to various commodities, where fuel, cigarettes, alcoholic beverages, refreshments, etc. prevail. As of 1 April 2002, started to be implemented the Profit Tax, while as of 1 April 2002 also the tax on wages and pension contributions, to continue with the amendments that have taken place in fiscal policy in Kosovo.

The compliance with tax obligations is the establishment of the highest level of voluntary compliance in accordance with applicable tax legislation, as well as provision of professional, transparent and effective services to taxpayers.

TAK is responsible for collecting central government taxes, including:

- Value Added Tax (VAT);
- Personal Income Tax;
- Corporate Income Tax;
- Withholding Tax;
- Pension contributions;
- Issuing licenses for games of chance.

Table no. 1, Laws and Instructions in force in Kosovo:

No.	Law name	No. of Law	No. of Administrative Instruction
1	Law on Tax Administration and Procedures	No. 03/L-222	No. 03/2016
		No. 04/L-102	No. 15/2010
		No. 04/L-223	
2	Law on Value Added Tax - VAT	No. 05/L-037	No. 03/2015
			No. 06/2016
3	Law on Personal Income Tax - PIT	No. 05/L-028	No. 01/2016
4	Law on Corporate Income Tax - CIT	No. 05/L-029	No. 02/2016

## Tax System in the Republic of Kosovo

5	Law on Pension Contributions - PC	No. 04/L-168	
		No. 04/L-101	
		No. 05/L-116	
6	Law on Games of Chance	No. 04/L-080	No. 03/2013

Table no. 2. Revenues by type of tax for the years 2014 – 2016, in mil. €

o.	Type of tax	Realization			% of par. in total	Plan		% of particip ation	Co mpariso n	Co mparis on
		201	201	201		201	201			
		4	5	6		6 revi ew.	7			
	1	2	3	4	5=4/T otal	6	7	8= 7/T	9= 7/4	10= 7/6
	Value Added	136	153.8			180.3	193	46.	10	107
Tax		.94	7	180.36	46.7%	2	.87	2%	7.5%	.5%
	Withholding	67.	71.84	80.32		81.30	87.	20.	10	108
Tax		85			20.8%		87	9%	9.4%	.1%
	Individual	33.	31.91	33.16		38.09	36.	8.8	11	96.
Business Tax		08			8.6%		79	%	0.9%	6%
	Rent, Lottery,	10.	13.20	11.25		15.28	12.	2.9	10	79.
Royalties		49			2.9%		20	%	8.4%	8%
	Corporate Tax	55.	61.43	81.27		69.99	89.	21.	10	12
		31			21%		25	3%	9.8%	7.5%
	Total:	303	332.2	363.3	100%	385.0	420	10	10	109
		.69	8	8		0	.00	0%	8.7%	.1%

Source: MF-Treasury / TAK-Information Technology, 2017.

**3.1. Value Added Tax**

Value Added Tax is a tax on consumption and/or expenditures which is applied in 158 countries of the world. This type of tax began to be applied for the first time in France since 1954. In 1968, the European Union Council approved the first VAT Directive, which states that countries wishing to join EU, as one of the conditions, must develop a VAT system that is in compliance with the Directive.

When it comes to developing a new tax system in Kosovo, circumstances imposed to start developing a simple tax system. It was initially based on sales tax, at a rate of 15%. In Kosovo, the value added tax for the first time has been applied since 1 July 2001, with a rate of 15% and applies to all imports and domestic products to companies with a gross turnover over € 100,000, where amendments to VAT have been made earlier. The last applicable VAT law is of September 2015. Value Added Tax (VAT) is the main source of tax revenues in Kosovo. VAT comprises of 40% of tax revenues. The Kosovo government facing an expected increase of the budget deficit, as a result of the increase in public spending, has carried out a number of legal amendments to VAT.

For the purposes of Value Added Tax (VAT), a taxable person is any person who is, or is required to be registered for VAT and who independently carries out an economic activity on a regular or irregular basis, regardless of the purpose or outcome of that economic activity.

Value Added Tax (VAT) is a tax on consumption. If we look at the buyer's point of view, it is a tax on the purchase price. If we look at the seller's point of view, it is a value added tax on the product or service.

Any person meeting all the terms of the definition of a taxable person is required to be registered for VAT, if within a calendar year, exceeds the turnover of thirty thousand euros (€ 30.000).

VAT is scaled up in two rates, the standard rate of 18% and the reduced rate of 8% of the value of imported supplies and domestic taxable supplies, except for the supplies exempted and supplies treated as exports.

Table no. 3: Revenues from VAT in Kosovo for the period 2006 - 2017

Values are in 000 €

Years	Total revenues	Total VAT	Domestic VAT	VAT at border	VAT Partic. in %	Part. of domestic VAT in %	Particip. of VAT at border in %
1	2	3 = 4 + 5	4	5	6 = 3/2	7 = 4/2	8 = 5/2
2006	712,012	258,554	47,772	210,782	36.31	6.71	29.60
2007	902,998	313,822	58,783	255,039	34.75	6.51	28.24
2008	942,525	363,167	58,407	304,760	38.53	6.20	32.33
2009	1,146,817	390,620	62,959	327,662	34.06	5.49	28.57
2010	1,178,589	454,937	93,617	361,321	38.60	7.94	30.66
2011	1,303,328	540,923	121,438	419,485	41.50	9.32	32.19
2012	1,537,955	548,887	129,960	418,927	35.69	8.45	27.24
2013	1,428,704	559,959	147,679	412,280	39.19	10.34	28.86
2014	1,448,957	559,991	136,056	423,935	38.65	9.39	29.26
2015	1,691,849	611,319	154,800	456,518	36.13	9.15	26.98
2016	1,767,114	693,754	179,293	514,461	39.26	10.15	29.11
2017	1,912,521	756,117	198,341	557,776	39.54	10.37	29.16
Total:	15,973,369	6,052,050	1,389,105	4,662,946	37.89	8.70	29.19

Source: Ministry of Finance, <https://mf.rks-gov.net/>.

### 3.2. Personal Income Tax (PIT)

Personal Income Tax applies to all incomes received by an individual, which are taxable based on the Law on the Personal Income Tax. Taxpayers, for the purpose of this Law, shall mean resident and non-resident natural persons, personal businesses, partnerships and companies, who receive or create gross income from all sources, including wages, business activity, rent, lottery winnings, interests, capital gains, use of intangible property, and any other income that increases the taxpayers' net worth.

The object of taxation for a resident taxpayer is taxable income from a source in Kosovo and from a foreign source, whereas for a non-resident taxpayer is taxable income from a source in Kosovo.

## Tax System in the Republic of Kosovo

Taxable income for a tax period shall mean the difference between gross incomes received or accrued during the tax period and the deductions allowable under this Law with respect to such gross income.

Table no. 4, Tax rates in Kosovo

Type of tax	The turnover threshold	Tax rate
Value Added Tax - VAT	30,000 Euros	8% and 18%
Corporate Income Tax - CIT	under 50, 000 Euros	
Production, trading and transportation activity, etc.		3%
Serving activity		9%
Personal Income Tax - PIT	under 50,000 Euros	
Production, trading and transportation activity, etc.		3%
Serving activity		9%
Corporate Income Tax - CIT	over 50, 000 Euros	10%
Personal Income Tax – PIT	over 50,000 Euros	
Annual incomes from 0 to 960		0%
Annual incomes from 960 - 3000		4%
Annual incomes from 3,000 to 5,400		8%
Annual incomes from 5,400 and more		10%
Tax on salaries (monthly)		
Monthly income from 0 to 80		0%
Monthly income from 80 - 250		4%
Monthly income from 250 – 450		8%
Monthly income from 450 and more		10%
Tax on Rent, Interest and Royalties		10%
Tax on special categories		3%
Tax for non-residents		5%

Taxpayers with gross annual income over € 50,000 and those who have voluntarily selected to be taxed on real income are taxed according to the tax rates shown above, while taxpayers with gross annual income of € 50,000 or less are taxed on gross income by 3% (for activities: trade, transport, agriculture and similar commercial activities) or 9% (for activities: service, vocational, crafts, entertainment and similar). In addition to tax, these (self-employed) taxpayers are also obliged to pay the Pension Contribution.

Salaries of employees by the primary employer are taxed according to the tax rates (0%, 4%, 8% and 10%), while salaries of employees by the secondary employer are taxed by 10%.

Every employee, a Kosovo citizen, is obliged to pay 5% of the gross salary on behalf of the Pension Contribution. Also, the primary and secondary employer for the employees, who are citizens of Kosovo, contributes by 5% to the gross salary of the employee on behalf of the Pension Contribution.



Personal income tax is also subject to incomes deriving from the profits of a partner or shareholder in a company, incomes from bank interests or securities, incomes deriving from copyright and intellectual property rights.

Table no.5, Revenue from Personal Income Tax

Type of tax	Revenues from PIT by years, values are in 000 €		
	2015	2016	2017
Wage tax - withholding	71,997	80,327	86,561
Tax for Individual Businesses	31,975	33,161	35,148
Interest, rental, property rights, etc.	61,137	11,253	18,073
Total:	165,110	124,742	139,783

Source: MF-Treasury/ TAK- Information Technology, 2018.

### 3.3. Corporate Income Tax (CIT)

Corporate Income Tax applies to all taxable corporate incomes. Taxpayers are considered: Corporation or any other business enterprise that has the status of a legal person under the applicable law in Kosovo; a commercial company that operates with socially or publicly owned property; organization registered as a non-governmental organization; non-resident person with permanent unit in Kosovo.

The objects of taxation for the resident taxpayer are taxable incomes with the source in Kosovo and outside Kosovo, while for the non-resident taxpayer are only taxable incomes with the source in Kosovo.

Taxpayers with gross annual income over € 50,000 and those who have voluntarily selected to be taxed on real income are taxed at a rate of 10%, while taxpayers with a gross annual income of € 50,000 or less are taxed on gross income at a rate of 3 % (for activities: trade, transport, agriculture and similar commercial activities) or 9% (for activities: service, vocational, crafts, entertainment and similar).

For taxpayers with gross annual income over € 50,000 and those who have voluntarily selected to be taxed on a real income, taxable income for a tax period is considered a difference between gross income received or deriving during a tax period and deductions allowed with regards to those gross income.

Table no.6, Revenues form Corporate Income Tax

Type of tax	Revenues from CIT by years, values are in 000 €		
	2015	2016	2017
Corporate Income Tax	13,234	81,278	77,936

Source: MF-Treasury/ TAK- Information Technology, 2018.

### 3.4 The scheme of pension savings for individuals

The Kosovo Pension Savings Trust (hereinafter "the Fund") is an independent legal person under the supervision of the CBK, established with the sole and exclusive purpose of managing individual accounts for savings-based pensions, in careful investment and in the retention of pension assets and the payment of income generated in individual accounts for the purchase of annual pensions, for pensions based on savings as a trustee acting on behalf of participants and users.

Since August 2002 Social and public enterprises, as well as private enterprises have more than 500 employees, from August 2003 all employers have been asked to pay pension contributions on behalf of their Kosovar workers. The mandatory contribution is 10% of the gross salary (5% payable by the employer and 5% by the employee). The total contribution of pensions is deductible in calculating the

taxable income of the employer until the employee's contribution is deductible from the gross salary of the employee before the personal income tax has been calculated.

Both the employer and the employee can give voluntary contributions up to 30% of the gross salary of the employee (up to 15% of the employer and up to 15% of the employee).

Pension contributions are paid each month with forms issued by the Tax Administration, but unlike the taxes that go directly to the Kosovo Government, pension contributions are deposited in the Kosovo Pension Savings Trust which administers those contributions until the employees to whom those contributions reach retirement age.

The organizations and businesses of the self-employed that have employed employees will still be required to fill out separately the monthly blue tax forms and the white pension contributions forms.

Table no.7, Revenues from Pension Contributions

Type of tax	Revenues from pension contributions according to the years, amounts are € 000		
	2015	2016	2017
Pension Contributions	133,417	135,743	159,731

Source: MF-Treasury / TAK-Information Technology, 2018

#### 4. Tax Administration of Kosovo (TAK)

Under the name Central Fiscal Authority (CFA), this central revenue collection institution for the Kosovo Consolidated Budget was officially established on 17 January 2000, led and administered by UNMIK.

Since February 2003, UNMIK's management powers were transferred to the Ministry of Finance and Economy under the new name Tax Administration of Kosovo (TAK), and since that time has been operating as a fully operational autonomous executive agency, fully managed by locals with the assistance of international donor organizations, including USAID, EU, IMF, etc.

TAK's responsibility is to administer the applicability of any type of tax applied under Tax Legislation in the Republic of Kosovo. TAK is an Institution that guarantees financial stability in the country, collecting tax revenues for the Kosovo Budget. TAK has a legal obligation to ensure uniform application of legal provisions for all taxpayers in the same way for the same situations.

Initially, when it was established, TAK has administered the Tax on Restaurants and Hospitality, which was replaced by the Presumptive Tax, whereby all business income were taxed. VAT started to be applied since 01.07.2001. In April 2002, the Tax on Wages, as well as the Profit Tax on legal persons, started to be applied, which until then were taxed by Presumptive Tax. From January 2005, a fiscal reform has been carried out, substituting the Presumptive Tax, Tax on Wages and Profit Tax with two new types of taxes: Personal Income Tax, which charges natural persons and individual businesses and Corporate Income Tax, which charges legal persons. The tax system in Kosovo has evolved from the UNMIK Regulation system to the system of tax laws issued by the Assembly of Republic of Kosovo. These laws are considered to be understandable and easy to administer and enforce.

The tax system in Kosovo relies on Laws and Instructions issued to ensure the establishment and collection of tax revenues for the Kosovo budget, such as the Law on Tax Administration and Procedures, the Law on Value Added Tax, the Law on Personal Income Tax, Law on Corporate Income Tax, and Law on Games of Chance.

To implement its mission and vision, TAK has chosen its values, namely: Professionalism, Integrity / Honesty, Efficiency / Effectiveness, Service Excellence and Transparency. These values should be applicable on how we treat the taxpayers and different partners we work with.

TAK's strategic priorities are: increase of staff skills / abilities, improvement of key tax processes, reduction of the level of informal economy, upgrade of information technology to enable more efficient work within TAK, and improved services for taxpayers, providing an effective organizational structure, supported by strong governing mechanisms and clear accountability.

Parallel to the main purpose of revenue collection, TAK performs numerous activities based on the Strategic Plan 2015-2020, as well as other annual and periodic plans, by providing better services to taxpayers, increasing professionalism and transparency, better perception on integrity and honesty towards voluntary increase of tax payment. Of course, TAK's achievements, in addition to internal staff, are also related to activities carried out with other local and international institutions that are providing expertise and professionalism to keep TAK in step with modern sister organizations.

In 2016, TAK has developed a function-based organizational structure, which for the most part is in line with best international practices. TAK has invested a lot in the development of the electronic system in recent years, enabling taxpayers to be provided on-line and cost-free services. A robust performance management system has been developed with annual Risk Management Plans and an annual operations planning process.

The EDI electronic tax declaration system is advanced, safe and convenient for application, which includes features that facilitate the application of this system. Each taxpayer, through the EDI system, is enabled: declaration and payment of tax liabilities for all types of taxes, correction of tax declarations, and possibility of paying for unpaid liabilities and access to the history of their declarations. Through the TAK web site, other electronic services are provided, such as: equipping with Tax Certificate, Reporting of Purchases over € 500, downloading of tax declarations for taxpayers who declare in manual form.

The accessibility, simplicity and clarity of information provided by TAK marked an improvement from previous years, and are at an acceptable level. The most visited/frequented sources of taxpayers have been the website, TAK's offices or staff, while Call Centers are among the least exploited. Most of the procedures are relatively simple and easy to follow in terms of complexity and time cost. Exceptions are reimbursement and complaint filing procedures. In addition to the high level of complexity and time cost, as an additional burden, taxpayers have also mentioned the inappropriate attitude that TAK inspectors have sometimes. Newly made changes aimed at facilitating procedures (electronic declarations), call centres, fiscal and business one-stop shops have reduced the compliance burden.

In the near future it is foreseen establishment of a single Revenue Agency, whereby the TAK and Customs will be unified into a single Agency. The goal is to avoid bureaucracy, to have a simpler procedure run only for a single Agency that will be a relief for businesses, and it is expected to have economics and efficiency in collecting and increasing revenues. This project is supported and assisted by the IMF and the EU.

The number of employees in the Tax Administration is 781, out of which 535 men and 246 women.

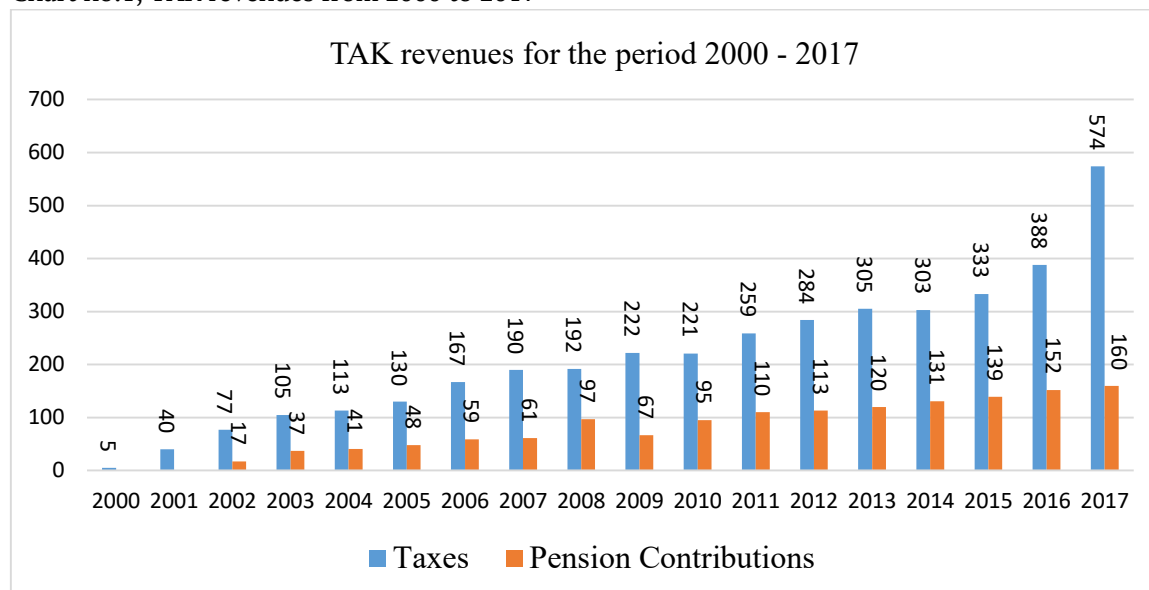
Table No. 8, Status of the number of employees, including the qualification, ethnic and gender structure

Qualification structure				Ethnic structure				Gender structure		
Superior	High	Secondary	Elementary	Albanian	Serbian	Turkish	Others	Male	Female	Totally
694	9	76	2	742	31	2	6	535	246	781
88.9%	1.2%	9.7%	0.3%	95.0%	4.0%	0.3%	0.8%	68.5%	31.5%	100.0%

Source: TAK - Human Resources Division, 2018.

TAK started with the collection of revenues (taxes and pension contributions) from 2000 to the amount of € 5 million, increasing in 2017 to € 574 million.

Chart no.1, TAK revenues from 2000 to 2017



Source: Tax Administration of Kosovo, 2018.

## 5. Conclusions and Recommendations

The tax system is based on the self-assessment and voluntary compliance principles. Voluntary compliance is based on the rule that taxpayers themselves determine their tax obligations and voluntarily submit their declarations and payments. While the strategy for the compliance with obligation shall be oriented in providing services to taxpayers to respect the laws in a fair and unbiased manner, to ensure that the system is fair to all.

Conditions within TAK and Customs shall be created to make the compliance with the obligations easier and to behave in such manner as to gain public trust in administering our tax system in a fair and transparent manner. Without public trust, it will be difficult to apply a system of self-evaluation and voluntary compliance.

Visits to businesses shall be organized and conducted in such a way that their content is achieved in certain conclusions that meet the quality standards and serve for a realistic assessment of the situation of taxpayers and the complete compliance with their obligations, therefore, based on this, it appears that the quality of these visits also depends on the level of compliance with tax obligations by self-evaluation or voluntary declaration.

Adequate tax system and favourable business environment are the most important pillars for the sustainable development of the private sector in the country. In this regard, fiscal policy reforms include VAT escalation, decrease of VAT threshold, VAT exemption of production lines and machinery, VAT and Customs Duty exemption on basic inputs of the sectors with competitive priority, and functionalization of industrial and technological parks, within which it is foreseen the provision of various tax incentives.

Revenues collected from VAT to total revenues are around 40% and represent one of the most important tax forms in all countries no matter what stage of development the country is. Currently VAT is applied in approximately 158 countries of the world.

By the approval to be exempt from VAT the production lines and machinery for use in the production process, the raw material being used for the production process, the information technology equipment. The Ministry of Finance shall start with the implementation of tax breaks as a way of promoting new investment that can generate new jobs and mitigate trade deficit.

Identification of businesses and natural persons, who through incorrect documentation avoid tax obligations. Identification of persons who conduct economic activity without being registered, such as in trade, services, agriculture, construction, recreation activities.

The Ministry of Finance shall introduce direct tax facilities for citizens as the most effective means of redistributing revenues, continue with the reimbursement of citizens in a monetary value set in advance in collecting fiscal coupons, obtaining information from citizens for not issuing fiscal coupons, tax bills, corruption information and other information that help in combating fiscal evasion, and find ways to stimulate citizens who provide information to help in combating fiscal evasion and to have an impact on revenue growth in the state budget.

## 6. References

- Bundo, SH., (2012): Fiscalities, Tirana.
- Bundo, SH., (1998): Encyclopedia, Tirana.
- Bundo, SH., (2011): Financial Theories, Lecture Cycle, Tirana.
- Bundo, SH., (2012): Finance, Tirana.
- Bundo, SH., Cane, G., (2003): Finance, Tirana.
- Bundo, SH., Sallasi, B., (1995): The firm's finances in business, Tirana.
- Baraliu, M., (2014): Social Security in Kosovo 1946 - 1996, Pristina.
- German International Cooperation (GIZ), Public Finance Project in Kosovo, (2015): Survey of the Year 2015 with Taxpayers, Prishtina.
- Bombek, M., K., The Fundamentals of Small Business Direction, Tirana.
- Bozhidar, J., (1985): Science on Finance and Financial Law, Pristina.
- Ciceri, B., Xhafa, H., (2005): Financial Direction 2, Tirana.
- Ciceri, B., Xhafa, H., (2014): Financial Direction 1, Tirana.
- Feld, L., (2001): Local fiscal referenda the dampening effect on taxes and spending, Economic Policy.
- Hilmia, S., (2005): The word and the thoughts of an economist, Tirana.
- Hilmia, S., Angjeli, A., (1994): Public finances, Tirana.
- Hogye, M., (2000): Local and Regional Tax Administration in Transition Countries, Budapest.
- Kadriu, S., (2002): Public Financing with a Special Overview in Kosovo, Pristina.
- Komoni, S., (2008): Public finances, Pristina.
- Lyon, H., (2010): Principles of Taxation.
- Mayo, B., H., (1995): Finance, Tirana.
- Mayo, B., H., (2012): Fundamentals of Finance, Tirana.
- OECD, (2000): Fiscal design across levels of government year 2000 survey.
- Prenga, K., Beshir, C., (1998): The role of fiscal policy in the market economy, Tirana.
- Rakipi, A., (2003): Corruption and tax evasion, Tirana.
- Rosen, S., H., (2010): Public finances, Tirana.
- Sharku, G., (2013): Insurance, Lecture and exercise cycle, Tirana.
- Sharku, G., Leka, B., Bajrami, E., (2013): Finance, Lecture Cycle, Tirana.
- Sharku, G., Leka, B., Bajrami, E., (2016): Finance, Tests and Exercises, Tirana.
- Sharku, G., Leka, B., Bajrami, E., (2017): Finance, Lecture Cycle, Tirana.
- Stamp, J., (2009): The Fundamental Principles of Taxation in the Light of Modern Developments.
- Zeka E. and others (2013). To Pay or Not to Pay: The Informal Business Perspective in Kosovo. Institute for Development Research (RIINVEST).
- Wilson, J., (1993): The role of taxes in location and sourcing decisions, in Studies in International Taxation, Chicago.
- TAK, (2016): Tax Legislation of Kosovo, Edition III, Pristina.
- GAP, (2016): Effects of the Law on Value Added Tax, Pristina.
- GIZ, (2015): The 2015 Survey with Taxpayers, Pristina.
- RIINVEST, (2015): State and Budget, Pristina.
- RIINVEST, (2002): Report on the Performance of Building Taxation and Tax Policy in Kosovo, Prishtina.

<http://ask.rks-gov.net/>

<http://www.mef-rks.org/>

<http://www.atk-ks.org/>

<https://www.bqk-kos.org/>

<https://dogana.rks-gov.net/>



# Order Collection in Warehousing

Huseyin Senkayas, Emre Danisman, Sukru Uzundag

## 1 .Introductory

Use of time and space : The term “ use of time and space” which means that the products would be in the desired place when they are demanded for consumption, can be effectively achieved only by the continuation of production, the granting of the needs of the consumer, and the effective use of time and space (Malkoç,2006:3).

When customers do not demand products, it makes the logistics activities meaningless. Therefore , concepts such as customer satisfaction, short delivery periods, low cost have become more important than ever before. Nowadays, the vast majority of customers do not show the tolerance that they could show in the past about delivery times (Görçün, 2013: 6-7).

The ultimate success in logistic activities can be explained by lowering costs, accelerating processes and increasing customer satisfaction. While being identified with logistics, transportation and warehousing before ; with the influence of globalization and technological progress; logistics became covering also the concepts such as transport, demand forecasting, material handling, stock management, packaging, location selection and order taking activities (Ceran,2007:155).

Warehousing Locaiton Management : Explains the technical structure of the warehouse such as the specifications of the warehouse locations, dimensions, capacity and the location of the shelves.

The basic criterias for selecting a warehouse system are as follows:

- The number of products in different types.
- Product specifications,
- Product quantities,
- Placement/collection time required,
- Space requirement,
- Collection methods (Hompel ve Schmidt. 2005: 91).

The reduced profit margins and the difficulty of finding opportunities that enable cost reduction has been forcing logistics managers to look for solutions by focusing on the warehouse. Warehousing practices that will achieve high savings, have the potential to involve many operations from material movement to shelf layout.

According to Hapbaoğlu (2009) , of all the logistics costs , 25 percent stems from warehousing/distrubution, 24 percent from stock transport and losses, 6 percent from surcharges and 4 percent from administrative expenses.

## 2. Warehousing and Warehouse Design

Goods receiving, warehousing, order collection and shipment are carried out in warehouse activities (Güler,2006:24). The warehousing process starts with the arrival of the material that is subject to demand to the warehouse area and ends with the delivery to the distribution points. (Görçün, 2013: 9-10).

Logistics performance can be increased by the enterprises by maintaining the distribution centers effectively and efficiently, by being shareholders in the market and by maintaining or improving their places in the market.

Productivity: Supply chains that operate at the desired location and time for delivery and at least inventory are susceptible to variability. One of the main reasons for keeping inventories is avoiding high cost situations in order not to stop the production line. The supply chains that work for the desired location and time of delivery, with minimal inventory, are vulnerable to variability. One of the main reasons for having stock is to avoid costly situations that occur in order not to stop the production line.

Providing Additional Services: Customers demand short time delivery of multiple products today. In order to reduce the high cost of this expectancy, using the same and compatible parts can increase the product diversity.



Reducing Transportation Costs : Instead of transporting the products in low quantities and frequencies, transporting in high quantities and frequencies will increase the effectiveness and efficiency of the enterprise.

Today, most of the enterprises are trying to increase their efficiency by reducing costs in warehouses and distribution centers (Tunç vd.,2008:359).

Configuration of warehouse areas is important for efficiency in warehouse management. Preparing the designs of the enterprise's warehouse areas by considering the needs, will increase the efficiency and effectiveness of the logistics activities. Otherwise they can face conflicts between warehouse areas and logistics activities, increased costs, disruption, and reduced efficiency (Görçün, 2013: 87).

The warehouse design in the logistics activities includes the order collection process, the decisions about sending the products to the classification sections, and the taking of the decisions about the assignment of trucks coming to receiving area from the loading area. When such decisions are examined, vehicle arrivals, delivery frequencies and incoming product quantities should be taken into account.

In the process of effective management of storage activities and ensuring efficiency, the order in facility layout is very important. Warehouse layout design process includes the allocation and organization of all enterprise units to reduce costs and increase the efficiency and effectiveness. In measuring the efficiency of storage activities; there are quality-determining procedures under the name of placement, stock, order collection and shipment accuracy (Bayraktar vd.,2011:382).

### 3. Order Collection

The activity of collecting one or more product together is called order collection. Order collection, which is expressed as produced material or product, is a labor-intensive and costly storage activity at the warehousing and distribution center. Details must be considered in the planning and executing process of order collection. There are many storage and handling equipment in order collection systems today. System is designed to carry out the related and standard activities that provide planning and organization of order collection in appropriate order and sequence. Traditionally, the order collection system is divided into the following sections;

- Product Flow System
- Organization
- Information Flow (Hompel and Schmidt 2005: 30).

Order collection process includes grouping and scheduling of customer orders, stocks compliance with orders, taking materials from stock locations and preparing the taken materials. The process of collection the products needed from the rest of the stock is called order collection. On the other hand, "order" lists the products needed by a customer and/or a product/assembly work station in a production center or warehouse (Van den Berg ve Zijm, 1999).

Eventhough order collection seems like a process that can be handled easily, various factors have great influence on the performance and efficiency of the collection process. These factors can be described as, demand structure of products, storage designing, settlement of products in the warehouse, , collection methods used for retrieval of products from their locations and combining them according to customer orders , and rotation method which is used by collectors and which defines the collection order of the products (Hopbaoglu, 2009:59).

The initial stage of order collection operations begins with the arrival of customer orders at the warehouse site. Incoming orders are entered into the system by the operators and the system checks whether the products which are subject to the order are in warehouse. At the same time, it is determined whether the quantity of product is present from the demanded product, and if the product is not available or is insufficient, information is given to the factory or the supplier.

In the order collection process, it is necessary that the quantity of the products to be collected and the quantity of vehicles and personnel used in the process are compatible. If the quantity of goods to be collected from the stocks within a specified time exceeds the capabilities of the equipment to be used, there may be mistakes and delays in the order collection process (Görçün, 2013: 207).

The situation in which the order collecting process can be associated with quality service is to bring the order to the customer and to provide the customer's demands in a short time. "The quality level of the service" occurs with emerging of various factors together such as the average value and variability during order delivery, and the correct and complete creation of the order.

Approximately half of the order collection period belongs to the duration of the trip. According to Bartholdi and Hackman "Wasted time" and "the time spent during the trip" means the same. It causes high cost and it is a time period that gives no added value (Tuna ve Tunçel, 2012:15).

The main factors affecting the performance and diversity of order collection systems are as follows;

- Warehouse layout design,
- Stock assignment/storage strategy,
- Routing policy,
- Zone separation period,
- Order combining policy (Tuna ve Tunçel, 2012:19).

Order collection is an efficient process for reducing warehouse costs and delivering parts to the production department on time. (Tunç vd., 2008:357).

In most order-collection systems, the collector does his/her job with the support of the technology. While the collector performs this task, he/she provides the route to be followed and thus reduces the disruptions by performing the ordering completely and correctly in the shortest time. The disruptions in the order collection process reduces the confidence that the customer has in the logistics capability of the enterprise, and therefore results in time and financial loss.

The collection process is to bring the products together according to the collection list while moving in front of the product shelves. One or more product case can be placed and the products can be sorted in separate cases according to customer orders. The collector takes the empty collecting lists and cases and starts his/her tour in his route from one designated place of the warehouse and ultimately arrives the area where the shipment will take places with full cases. The collector moves along the specified destination in the course of the route. In this type of order collection process, it is seen that there are single-step orders and the collector moves in one dimension.

In the cost-reducing process, it will be useful to pack the products according to complementary orders, and to making them ready for delivery by assembling different amounts and volumes together. However, cost increases often occur because optimization is not usually done on operational field products and thus resulting in repackaging.

The shipment department in the warehouse area combines the products according to their orders and loads them into the vehicles. These shipment transaction processes include control and coordination activities (Hompel ve Schmidt. 2005: 50).

The usage of warehouse areas without optimizing causes increase in routing distance and decrease in the usage of field. Therefore, a continuous analysis is carried out on the properties of the storage site in the order collection process. Effective use of the capacity in the warehouse operation will contribute to the accurate and timely collection of the orders assigned to the products and therefore the storage costs will be kept as low as the work load (Görçün, 2013: 216).

#### **4. Research Findings**

In addition to the limited number of investigations to determine the impact on order collection decisions, which is one of the logistics activities and is carried out in storage, it is understood this is the research findings are researchers are becoming more and more important.

In this study, in which warehousing effect on order collection is analyzed; the issue whether or not the storage conditions have an effect on the order collection constitutes the study's main focus.

##### **4.1 Models and Hypotheses of Research.**

The model of the research that examines the variables used in the research and relationships between the variables is as in Figure 1

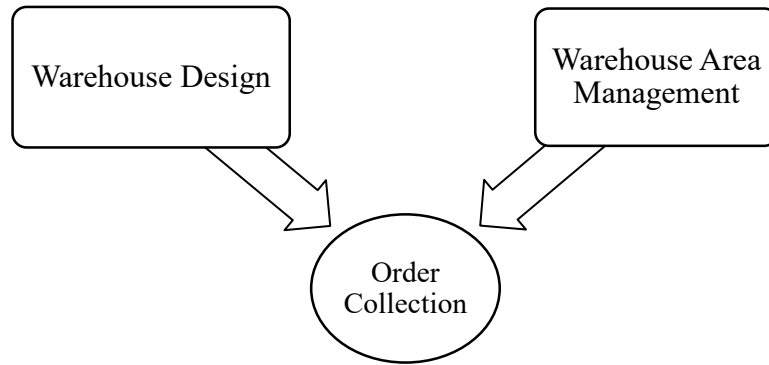


Figure 1 . Model of the Research.

The following hypotheses have been made in order to determine what activities should be given importance and priority for ensuring the efficiency of the design and management of the warehouse in order collection process and ensuring the efficiency in the activities performed in warehouse area on behalf of researchers.

H1 : There is a meaningful relationship between warehouse area design/management and order collection.

H2 : There is a meaningful relationship on a statistical level between warehouse area design/management and order collection.

#### 4.2 Determination of Research Population and Sample.

The population of this research consists of warehouse and distribution centers ,in five different cities, which belong to a food enterprise that provides products to Tekirdağ and Konya cities in Turkey. The samples of the research are employees over 18 years of age working in a warehouse and distribution center located in Aydın which is one of the five cities mentioned above. Easy sampling method was used because it doesn't limit the numbers of samples to be used. A total of 11 questionnaire surveys were conducted in this direction, consisting of 51 employees in the warehouse and distribution centers on a face-to-face basis. The period of collecting data process is determined as one week. At the end of the process, it was accepted that 51 sample forms were valid and complete, and the sample size of the study was designated as  $n = 51$  because it was found that this number was appropriate for the maximum number of samples criteria(Yazıcıoğlu ve Erdoğan, 2004:50).

#### 4.3 Preparation of Data Collection Form.

The survey form, which will constitute the data of the research, has been prepared with the help of similar studies in the current literature which Hompel and Schmidt (2005), Hopbaoğlu (2009), Tunç (2008), Tuna and Tunçel (2012), Van den Berg and Zijm (1999) performed before.

#### 4.4 Statistical Methods To Be Used in Analysis of Research Data.

In the analysis of research data SPSS. 20.00 Statistical Package Program was used. In the analysis of the data, statistical tests (Factor and Regression analyzes) were carried out.

#### 4.5 Findings.

Findings Regarding the Validity and Reliability of Research Scales

In this study, factor analysis was conducted to test the structural validity of the scales in the research survey form. In order to perform factor analysis on scales, the level of correlation was examined. The level of mutual correlation between the variables on the research scale and whether the scale was appropriate for factor analysis was determined by KMO-Barlett (Kaiser-Meyer-Olkin) test. Test results are shown on table 1 below.

**Table1.** KMO and Bartlett Test Values of Research Scales

Scales	KMO	BARLETT	P
Warehouse Design	.582	19.806	.000
Warehouse Area Management	.514	77.865	.000

In the process of determining whether the scale is appropriate for factor analysis, if the results are below 0,5 , it means that the scale doesn't fit to factor analysis. As shown on the chart above, it can be seen that the KMO result of the scale examined is above 0,5, thus appropriate for factor analysis. The other test value on the chart is Bartlett values; with the Chi-Square score of 19.806 and 77.865 3 and degree of freedom 3 and 36 ( $p = 0.00$ ,  $p < 0.05$ ), means that "as a result of the analysis, the relationship between the variables is statistically meaningful.

Factor analysis was applied to the "warehouse area design" scale that was used in the research. A factor has been obtained according to this and this factor accounts for 57.43% of the total variance. The factor loadings of the three items in the design scale of the warehouse area were between 0.511-0.715, and it was determined that all of the items in the scale and the whole portion of the scale were reliable.

Factor analysis was applied to the "warehouse area management" scale that was used in the research. Four factors has been obtained according to this and these factors accounts for 69.69% of the total variance. The factor loadings of the four items in the management scale of the warehouse area were between 0.597-0.900, and it was determined that all of the items in the scale and the whole portion of the scale were reliable.

The Cronbach's Alpha test was used to determine the internal consistency /reliability of the scales used in the research and the test results are presented in table 2 below.

**Table 2.** Cronbach's Alpha Test Results

Scales	CRONBACH'S ALPHA	N
Warehouse Design	.623	3
Warehouse Management	.468	8

When the values in table 2 are examined, it is seen that the reliability of the warehouse area design scale is medium with  $\alpha = 0.623$  degree and the reliability coefficient of the warehouse area management scale is close to medium with  $\alpha = 0.468$  degree.

H1 : There is a meaningful relationship between warehouse area design/management and order collection.

The Non-parametric Mann-Whitney U Test was conducted to determine whether the design and management methods of participants varied according to gender and the two departments they work. The test results are presented in Table 3 below.

**Table3.** Design and Management of the Storage Area and Analysis of the Participants according to the Education and Training Department Status

Variables	N	Average Value (ST)	U	z	p
Female	2	10.25	17500. 00	- 1.599	<b>.110</b>
Men	49	26.64			
Order Collection	24	27.10	9500.0 0	- 5.234	<b>.000</b>
Shipping	15	8.63			

When the results in table 3 are examined, it is seen that the design and management methods of participants didn't change significantly in a statistical level according to gender. ( $U = 17500$ ;  $z = -1.599$ ;  $p = .110 > .05$ ). Although the average value scores ( $ST = 10.25$ ) of the female participants were found to be statistically different from the average value scores of male participants ( $ST = 26.64$ ) regarding order collecting, according to findings, it will not be meaningful to say that men who participated in the survey think that the items on the warehouse site effect order collecting process more than women think. However, the warehouse area design and management method of the participants seems to differ statistically according to the two departments where they work. ( $U = 9500$ ;  $z = -5.234$ ;  $p = .000 < .05$ ).

H1 hypothesis was accepted because the participants in the sample group participating in the study differed significantly compared to the department working outside the gender variable.

Regarding the research problem; the effect of warehouse area design and management on order collecting process was tested by regression analysis.

H2 : There is a meaningful relationship on a statistical level between warehouse area design/management and order collection.

Linear regression analysis was performed to measure the effect of the warehouse are design and management on order collection process. In Regression analysis" order collection" was analyzed as dependent variable, while "design and management of warehouse area" was analyzed as independent variable. The test results are presented in Chart 4 below.

**Table 4.** Effect of Design and Management of Storage Area on Order Order (Regression Analysis)

Dependent Variable	D f	B	R <sup>2</sup>	$\Delta R^2$	t	F	p
Order Collection	5 1	.5 54	.3 07	.27 8	10. 334	10. 611	.0 00

When table 4 is examined, it is seen that regression model is meaningful. ( $R = .554 > 0$ ;  $F = 10,611$ ;  $p = 0,000 < 0,05$ ). According to the findings of regression analysis; the regression coefficient ( $\Delta R^2 > 0$ ) for "the design and management of the warehouse area" is different than zero, t value is positive and p value is less than 0.05 ( $t_{51} = 10.334$ ;  $p = .000 < .05$ ). Regarding the adjusted R2 value, the affect of the "design and management of the warehouse area" on order collection is 27.8%. According to the findings; "design and management of the warehouse area" has a positive but low-level affect (27.8%) on order collection. H2 hypothesis is accepted according to the results.

## 5. Conclusion

It is understood that the order collection process is the warehousing process that affects the warehouse costs and allows the production to be performed on time, even if indirectly due to sectoral differences.

Since the necessary changes in warehouse design and management processes depend on investment volume and time, warehouse operations should be analyzed and modelled in advance. The parameters of the model which were determined according to the opinions of the experts are as follows; number of carriers, narrow corridor, delivery frequency, work flow and vehicle arrival times.

The main purpose of warehouse design is to ensure that the volume capacity of the warehouse is used at the maximum level. Therefore large corridors must be used for fast moving materials, and narrow corridors must be used for slow moving materials and also high shelf systems

Effective decisions about the order collection process have made it possible to shorten the navigation period and thus ensure that goods arrive on time to the customer, increase the production speed and collect the products and raw materials in shorter time and in the correct way from the warehouses.

The practices that make the “order collection process costs” effective, has boosted the performance of the warehousing process.

Products and raw materials must be collected more efficiently and efficiently from the warehouses in order to transport the goods to the customer on time and increase the speed of the production process. For this reason, in the process of optimizing warehouse systems, transport costs and periods should also be minimized. In order to achieve this purpose, improvements can be made at the process of order collection by examining the positions of the parts in the shelves and thus determining the most suitable routes that can perform the most appropriate collection activity .

## References

- Bayraktar, D., Bolat, H.B., Faki, B.M. Ve Çelikkol, S.G. (2011). Depo Süreçlerinde Performans Ölçümü Ve Değerlendirmesi İçin Bir Model Önerisi. XI. Üretim Araştırmaları Sempozyumu, 382-392.
- Ceran, Y., Alagöz, A. (2007). Lojistik Maliyet Yönetimi: Lojistik Maliyetler ve Lojistik Maliyet Muhasebesi. Yönetim Bilimleri Dergisi, 5(2), 158.
- Görçün, Ö. F. (2013). Depo Ve Envanter Yönetimi (1. Baskı). İstanbul: Beta Yayıncılık
- Güler, E. (2006). Depo Yönetiminde Bilgi Teknolojisi Kullanımı. Yüksek Lisans Tezi, İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü.
- Hompel, M. & Schmidt. (2014). Warehouse Management: Automation And Organisation Of Warehouse And Other Systems (1st Ed).
- Hopbaoglu, F. (2009). Tedarik Zincirinde Lojistik Sürelerde Depo Tasarımı Ve Depo Yönetimi: Kozmatik Sektöründe Bir Uygulama. Yüksek Lisans Tezi, İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü.
- İslamoğlu, A. H. (2009). Sosyal Bilimlerde Araştırma Yöntemleri (SPSS uygulamalı). İstanbul: Beta Basım Yayım.
- J.P.Van Den Berg and W.H.M.Zijm (1999) Models for Warehouse Management: Classification and Examples. International Journal of Production Economics, Vol.59, 1-3, P. 519-528.
- Malkoç, E. (2006). Depo Yönetim Sistemlerinde Kullanılan Otomatik Tanıma ve Veri Toplama Teknolojileri İle RFID Etiketleme. Yüksek Lisans Tezi, İstanbul Teknik Üniversitesi Fen Bilimleri Enstitüsü.
- Tuna, G ve Tunçel, G. (2012). Depo Yönetiminde Sipariş Toplama Sistemleri: Bir Literatür Araştırması. Dokuz Eylül Üniversitesi Mühendislik Fakültesi Mühendislik Bilimleri Dergisi, 14(42), 15-31.
- Tunç, S., Kutlu, B., Zincidi, A., Atmaca, E. (2008). Depo Sisteminde Sipariş Toplama Sürecinin İyileştirilmesi. Gazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, 23(2), 357-364.

Yazıcıoğlu, Y., ve Erdoğan, S. (2004). SPSS Uygulamalı Bilimsel Araştırma Yöntemleri. Ankara: Detay Yayıncılık.

# An Econometric Analysis For The Turkish Automotive Sector

Umut Evlimoglu, Ali Kemal Basbug

## 1. Introduction

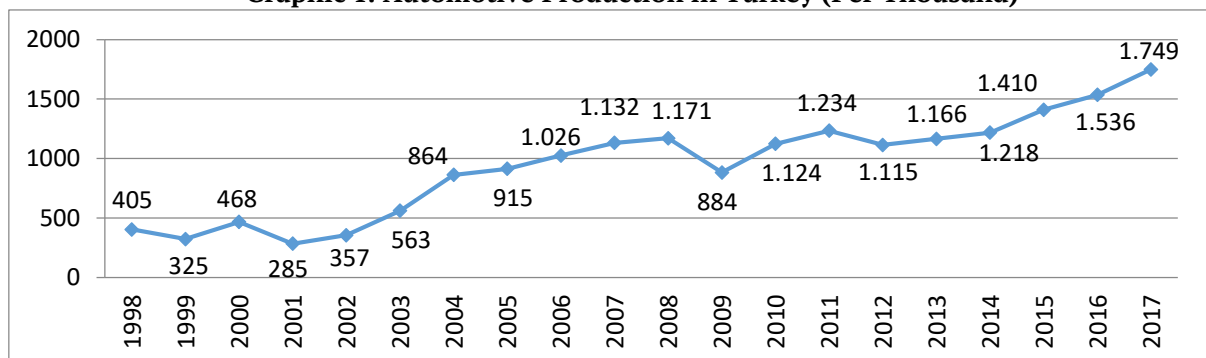
The growth and development of nations is dependent on an increase in national income. Therefore, each element that contributes to the increase in national income individually carries great importance. Should countries identify these elements and implement the correct policies, their contributions to national income will in turn increase further. The automotive sector of Turkey has become a sector that, with the effect of the strong production potential it has captured in recent years, both attracts the interest of foreign investors and exports to more than 150 countries. Considering the automotive sector in Turkey, it can be said that it harbors many different elements. When assessed in terms of factors such as its aiding the development of side industries, contribution to employment, and attracting foreign direct investment to the country, the automotive sector has an important place in the Turkish economy. At the same time, it also contributes to the tax revenues of the state. The automotive sector positively impacts the commercial activities of the country by ensuring development in other sectors. Considering these perspectives, the growth trend in the automotive market has an importance that concerns multiple dimensions.

The automotive sector first began in Turkey through assembly in the 1950s. The necessary infrastructure had been unable to be established until the 1980s due to the effects of protectionist policies being implemented in the country. However, participation in economic liberalization after the 1980s and in the Customs Union in 1996 gained strong momentum in terms of growth for the automotive sector. Today, Turkey is the 17th largest automotive producer in the world. Despite taxes being high in the automotive sector in Turkey, the sector continued to grow quickly.

## 2. The Automotive Sector in Turkey

Even if the automotive production had started in Turkey in the year 1963, momentum was only gained after the Customs Union. After this period, production began to increase, directed towards exports in addition to internal markets. Graphic 1 shows the figures for automobile production in Turkey. According to this, production started to rapidly increase as of the year 2004 and reached a motorized vehicle production capacity of 1.7 million in the year 2017.

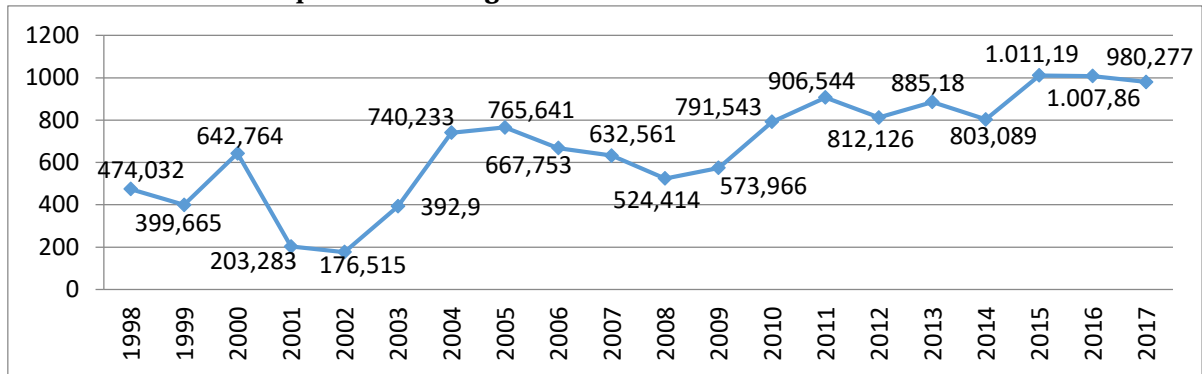
**Graphic 1. Automotive Production in Turkey (Per Thousand)**



**Source:** AIA Automotive Industry General and Statistical Bulletin 2017

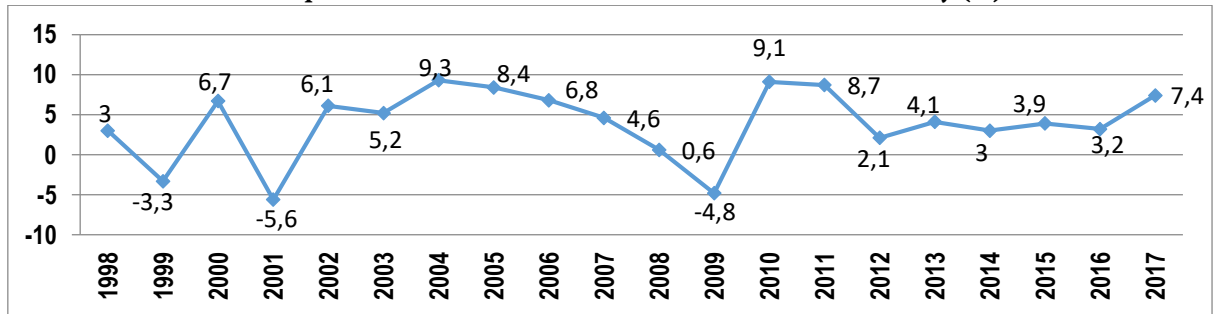
When looking at the data for the Turkish automotive market in the same period, it is seen that there a decrease in sales occurs in years of crisis due to the economic impact of the crisis. Sales in the automotive market vary based on the effects of elements such as tax burden in the sector, rate of increase of national income, cost of consumer credits, and export volume. Additionally, these elements are among the most important factors that influence the growth of the sector.



**Graphic 2. Sales Figures for the Turkish Automotive Market**

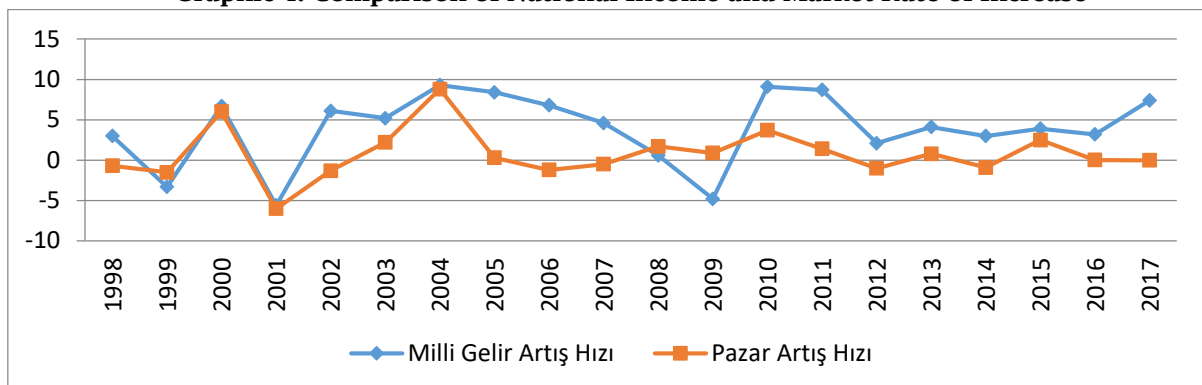
**Source:** Automotive Industry Association Statistics

Since 1998, there has been an average increase in the national income of Turkey of 3.9%. The economic crises experienced in 1999, 2001, and 2008 had a significant impact on the negative growth rates they caused. While the economy contracted 5.6% in 2001, a 4.8% contraction was seen in 2009. Despite this, serious rates of growth were attained in 2004 and 2010 with 9.3% and 9.1%, respectively.

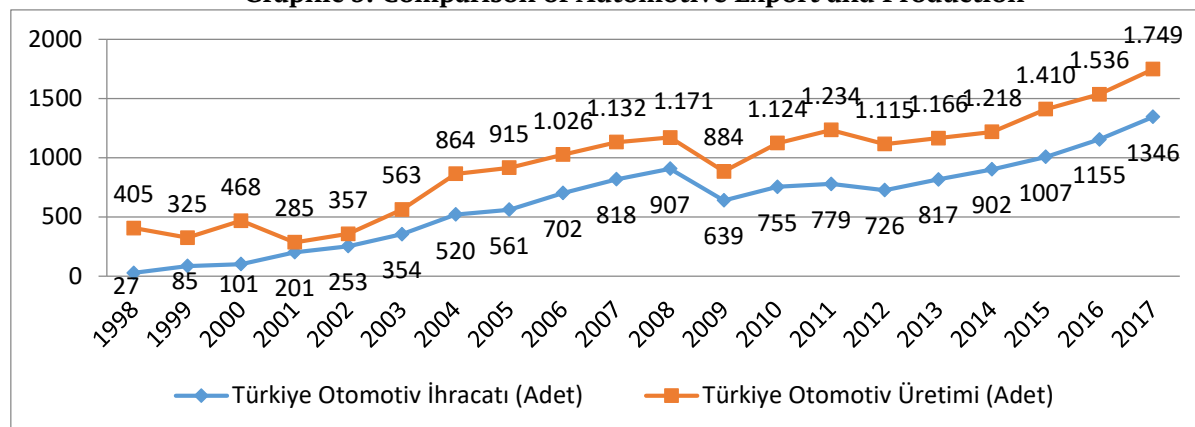
**Graphic 3. National Income Rate of Increase in Turkey (%)**

**Source:** TSI

The following graphic shows the similarities between national income and rates of increase in the automotive market. The rate of increase of national income is shown in blue, and the market rate of increase of the automotive sector is shown in red. It is seen in the graphic that both are closely related. In the years that national income entered into a trend of increase, a similar trend is also seen in the automotive market. The direction and details of this relationship are attempted to be explained by forming an econometric model in the following section.

**Graphic 4. Comparison of National Income and Market Rate of Increase**

The increase in automotive exports in Turkey in the period after the Customs Union in turn increased the production directed at foreign markets. Automotive exports increased with the effect of factors such as numerous global automotive brands beginning production by establishing factories in Turkey and realizing partnerships with Turkish firms and the proximity to the European market, and this situation provides significant contributions to the growth of the automotive sector.

**Graphic 5. Comparison of Automotive Export and Production**

**Source:** Compiled from AIA External Trade Reports

It is seen that there is a regular increase in automotive exports in parallel with the increase in production from the year 2001 until the 2008 global crisis and then again after 2010.

**3. Literature** The importance that the automotive sector possesses in terms of the Turkish economy makes it necessary for research to be conducted in this field. Considering studies conducted in this field, it is seen that there are quite few empirical studies and that the studies conducted comprise more sectoral-based assessments and reports. It is possible to summarize some of the studies conducted in this sense as such.

In the study that Görener and Görener (2008) conducted, they indicated that it is possible to be able to increase development on topics such as production and exports in the automotive industry by monitoring continuously developing technology, in order to be able to maintain the development of the Turkish automotive sector, which has succeeded in showing itself around the world.

In a study entitled “An assessment over the competitive strength of the automotive sector in Turkey”, Başkol (2009) specified that in order for sustainable competitive strength to be provided in the automotive industry, accessed activity in the area of production needs to be strengthened and more investment needs to be done in the fields of technological development and research and development, and that state incentives in the sector need to increase.

Engin and Polat (2010), however, researched the effects of the global crisis on the sector, and they accentuated that the implemented tax cuts prevented the sector from being impacted by the crisis but that other incentives need to be provided for the long-term development of the sector.

In the study entitled “The automotive sector in Turkey and a sample demand forecast”, conducted by Akgül (2010), the conclusion was reached that there is a directly proportional correlation between income and the number of automobiles in low- and middle-income groups, and that this proportion is lower in high-income countries. Additionally, it was determined that there was a significant relationship between demand for automobiles and the confidence index.

Ertuğral (2011) examined in a study the developments post customs union in the Turkish automotive sector and reached the conclusion that exports increased in the automotive industry together with the customs union but that along with this, production was carried out in international standards and that this in turn increased exports.

In the study that Avcu (2016) conducted, moderate concentration was determined in the sector using various indices for the purpose of identifying the market structure of the automotive sector with concentration analyses. It was concluded that in imported passenger and light commercial vehicles, low levels of concentration and competition between companies in the sector was high.

In the KPMG Turkish Automotive Executives Study (2016), the decrease in sales taxes to provide for the increase in the automotive market is considered to be a priority issue. It is seen that for distributors, the rate of increase of national income is more important of an issue than the decrease of tax burden for the growth of the automotive sector.

The Turkish Industrial Development Bank Automotive Sector Report (2017) says that an important factor that influences the demand for motorized vehicles in the long term in Turkey is the increase in national income.

#### 4. Method

The purpose of this study is to determine the direction of the causality relationships between the development of the automotive sector, the market rate of increase, and the development of national income in Turkey by revealing these and the revelation of the short- and long-term relationships between these. For this purpose, the Granger causality test, the cointegration analysis, and the error correction models (Vector Error Correction: VEC) were utilized. The study attempts to reveal the causality relationship between national income rate of increase and the growth of the automotive sector and the short- and long-term relationships between the automotive market and the amount of production using data belonging to the years 1998-2016. Three-month series were used in the study. The increase in national income was compiled from the Turkish Statistical Institute and made suitable, the total automotive production from the Central Bank of the Republic of Turkey electronic data distribution system (EDDS), and the total automotive market from the Automotive Industry Association (AIA). The E-views 8 econometric analysis program was utilized in the estimation of the models.

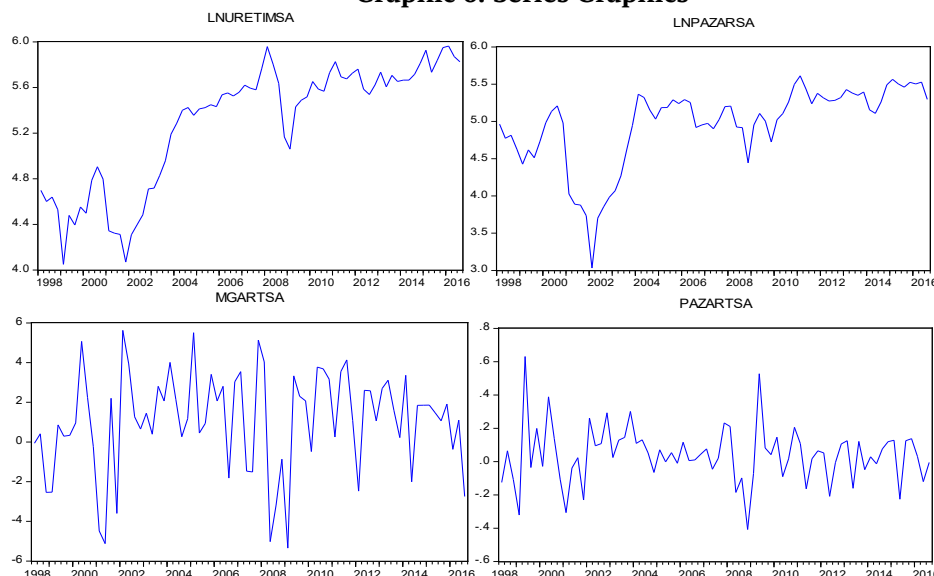
#### 5. Data Set and Model Setup

The data set and definitions used in the study are shown in the table below.

<b>Table 1: Explanation of Data Sets</b>	
<b>Data Set</b>	<b>Explanation</b>
niinc	National income % rate of change compared with the previous period
markinc	Automotive market % rate of change compared with the previous period
production	Total number of motorized vehicles produced in Turkey
market	Total automotive sales in Turkey

Seasonal effects can be observed in the monthly or 3-monthly data in the econometrics. Because the data used in the research are composed of 3-month time series, seasonal effects are researched and must be removed. All data understood to have seasonal influences are wiped clean of seasonal influences using the Moving Average method.

The natural logarithms of the production and market series were taken to correct the extreme outlier values in the set and thus remove the problems of changing variance. After these arrangements were made, first the series time-line graphics were referenced to research whether the series were stable and to, if they were not stable, make them stable with economic methods to be implemented.

**Graphic 6. Series Graphics**

Considering the time-line graphics of the data used in the study, it is seen that the national income and market rate of increase sets are stable and that the production and market series are not stable. In order for the relationships between the series to be healthily interpreted and the regression analyses to be conducted, the series must first be stable.

### 5.1. Stability Analysis and Unit Root Test Results

If the series differ based on time - if the series are not stable - then it is not possible to express the structure of the series with a simple econometric model. If the series do not differ over time - if they remain constant - a constant coefficient model for the series with the past values of the series can be established (Gujurati, 1999, p. 56). Shocks that occur over unstable series become permanent. For this reason, it is necessary to work with stable series in the analyses of time series. False regression relationships occur in the models established with unstable series.

In order for a series to be stable:

- The arithmetic average should be constant.

$$E(Y_t) = \mu; \mu \neq$$

- The variance should be constant.

$$\text{Var}(Y_t) = E(Y_t - \mu) = \sigma^2$$

- The covariance shouldn't be dependent on time but on length of delay.

$$\text{Cov}(Y_t, Y_{t-k}) = E[(Y_t - \mu)(Y_{t-k} - \mu)] = \gamma_k$$

If these three conditions are being provided, the series is stable. Unit root tests are tests used to identify whether a time series is stable.

Some conducted research has shown that the ADF test is weak in series that include the trend. For this reason, they expanded this test with Phillips-Perron. The reason the PP test is stronger is that the Moving Average (MA) process began to be used (Perron, 1990, p. 153-162).

The control of the stability of the series was researched with the ADF and PP unit root tests.

**Table 2: ADF and PP test results**

Variables	ADF	PP Test	Critical Values		
	Test Statistic	Statistic	1%	5%	10%
niincsa	- 7.221253*	-7.228647*	- 4.088713	- 3.472558	- 3.163450
markincsa	- 8.931824*	-9.688859*	- 4.088713	- 3.472558	- 3.163450
lnmarketsa	- 2.985067	-2.514570	- 4.088713	- 3.472558	- 3.163450
$\Delta$ lnmarketsa	- 7.701055*	-8.522728*	- 3.522887	- 2.901779	- 2.588280
lnproductionsa	- 2.514570	-2.975949	- 4.088713	- 3.472558	- 3.163450
$\Delta$ lnproductionsa	- 8.443880*	-7.677862*	- 3.522887	- 2.901779	- 2.588280

**Note:** The  $\Delta$  symbol indicates that the first difference of the variables is received. The \* symbol expresses a 1% significance level.

Considering the results based on Table 2, because the ADF Test Statistic values of the niinctsa and markincsa series are greater in absolute value than the MacKinnon Critical Values at the 1% significance level, the  $H_0$  hypothesis in the form that the unit roots of the sets contained is rejected, and the conclusion was reached that the series are stable at the level values. Because the ADF test statistical values for the lnmarketsa and the lnproductionsa series were smaller in absolute value than the MacKinnon Critical Values at all significance levels, the  $H_0$  hypothesis in the form that the unit roots of the series included is accepted, and the conclusion is reached that the series are not stable at the level values. Because the ADF Test Statistical values when the first differences of these variables are taken are greater in absolute value than the MacKinnon Critical Values at the 1% significance level, the conclusion was reached that the series are stable when their first differences are taken.

Because the Engle-Granger Cointegration Analysis to be conducted in the continuation of the study is sensitive to the stability levels of the series, the control of the stabilities was expanded with the Phillips-Perron unit root test. The PP test is stronger compared with the ADF test in series that contain trends. (Perron,1990). The results of the PP unit root test support the ADF test.

The national income rate of increase and automotive market rate of increase series were analyzed with ADF and PP unit root tests in which they were stable at the level values. The regression analysis to be conducted will not be false by using these two series because the niincsa and markincsa variables were stable at the level values. The Granger causality analysis was conducted to identify the direction of the relationship between the variables.

## 5.2. Granger Causality Analysis Results for Model I

The interaction between the rate of increase in national income and rate of increase in the automotive market was researched in Model I. Turkey's rate of increase in national income in the period of 1998-2016 observed an undulant, unstable course. The reason for this is that the economic crises of 1999, 2001, and 2008 experienced in the relevant period shrank the economy. The development of the automotive industry is dependent on economic development, because it is a sector that is rather sensitive to economic development. In the same period, the Turkish automotive market showed increases and decreases in some years.

In some situations, while conducting econometric analyses, the direction of the relationship between economic variables cannot be identified by economic theory. In situations like this, the direction of interaction between the variables can be identified with the Granger (1969) test. In this test, the interaction of all the variables with each other without discriminating between the dependent and independent variables can be analyzed simultaneously. The Granger Causality Analysis, a test that

is utilized in the formation of the VAR model and in the identification of the order of variables in the ARDL model and that is frequently used in econometrics,

was conducted with the help of two equations.

$$Y_t = \alpha_0 + \sum_{i=1}^m \alpha_i Y_{t-i} + \sum_{i=1}^m \beta_i X_{t-i} + u_t \quad (\text{Model 1})$$

$$X_t = \lambda_0 + \sum_{i=1}^m \lambda_i X_{t-i} + \sum_{i=1}^m \theta_i Y_{t-i} + v_t \quad (\text{Model 2})$$

It can be said in the models above that there is a causality relationship from X to Y in situations where the  $\beta_i$  coefficient in the first model does not equal zero in a certain significance level. Similarly, should the  $\theta_i$  coefficients in the second model be different than zero, it means there is a direct causality relationship from Y to X. Should both coefficients equal zero, there is no causality relationship between the two variables (Granger, 1969, p. 424-425). If it is to be considered that the Granger causality test is conducted based on the (1) regression equation, the direction of causality is defined by testing the  $H_0$  and  $H_1$  hypotheses with the help of the Wald test.

$$H_0 = \sum_{i=1}^p b_{2i} = 0 \text{ ve } H_1 = \sum_{i=1}^p b_{2i} \neq 0$$

Should the  $H_0$  hypothesis be accepted, then X will not be the cause of Y; and if the  $H_1$  hypothesis is accepted, then it is to be concluded that X is the cause of Y.

The Granger causality analysis was conducted to identify the causality direction between the automotive market rate of increase and the national income rate of increase. Table 4 provides the causality test results.

**Table 4: Model I causality analysis results**

Direction of Causality	F Value	Probability Value
<i>markincsa</i> → <i>niincsa</i>	0.34963	0.8804
<i>niincsa</i> → <i>markincsa</i>	2.44197	0.0447

**Note:** The optimal delay length was determined as 5 compared with the (LR FPE, AIC) tests.

The F statistics calculated with 5 delay length show that there is a direct, one-way causality relationship from the increase in national income to the automotive market at the 5% significance level. A direct causality relationship cannot be established, however, from the growth of the automotive market to the rate of increase of national income. For this reason, it will be appropriate to create models in which the rate of increase in the automotive market is a dependent variable and the rate of increase in national income is an independent variable.

### 5.3. Granger Causality Analysis Results for Model II

According to the results that emerged in Model I, the increase in the national income in Turkey vitalized automotive demand and helped growth the market. Therefore, the increase in the automotive market will also increase automotive production. An analysis was conducted in Model II with the series comprising the automotive market and the total quantification of automotive production in Turkey between the years 1998 and 2016. In this model, in which the total production and sale of motorized vehicles will be researched, the series were analyzed with ADF and PP unit root tests at, with which they were not stable at the level values and which they became stable when the differences from the first degree were taken. It is possible to conduct cointegration analyses between series that become stable from the same degree.

There is benefit in finding the direction of causality between the two variables and identifying the dependent-independent variables by conducting the Granger causality analysis before conducting the Engle-Granger cointegration analysis. According to the results of the Granger causality analysis, there is a direct, one-way causality relationship from the automotive market to production. In other words, it will be appropriate to conduct a long-term analysis in which the dependent variable is production, and the increase in the automotive market triggers an increase in production.

**Table 5: Model II causality analysis results**

Direction of Causality	F Value	Probability Value
$\ln productions_a \rightarrow \ln markets_a$	0.97754	0.4393
$\ln markets_a \rightarrow \ln productions_a$	2.39309	0.0484

**Note:** The optimal delay length was determined as 5 compared with the (LR FPE, AIC) tests.

That the calculated F statistic is different than zero in the 5% significance level in the direct causality analysis from market to production conducted with 5 delay lengths indicates the direction of the causality. Short- and long-term relationships can be analyzed by creating regression equations in the direction of the specified causality relationship.

#### 5.4. Cointegration Analysis and Error Correction Model Results

For the cointegration analysis, the error terms of a regression estimation are obtained and ADF, a unit root test, is implemented on the series by means of conducting a regression estimation with the level values of the series that are not stable at the level values and are become stable when the difference is taken in the same amount. The Durbin-Watson (DW) value for the acquired ADF test statistic is compared with the Enger-Granger (1987, p. 269) table value. If the test values are greater than the table values, then it is decided that there is a cointegration relationship between the sets (Enders, 1995, p. 151). The secret prerequisite for there to be able to be a cointegration relationship between variables is the series being similar to the trends in the graphics for the level values.

In the error correction model, it was researched whether the deviations that occurred in the short term between the series that acted together in the long term and, if they were eliminated, how after how long of a period of time were they eliminated. The stable states of these series (states whose difference is taken) in this analysis and the period delayed value of an error term series obtained from the long-term analysis are used. The model to be used is as follows:

$$\Delta Y_t = \beta_0 + \beta_1 \Delta X_t + \beta_2 ECM_{t-1} + v_t$$

$$ECM = U_t$$

When this model is estimated, that  $\beta_2$  is negatively and statistically significant means that the error correction mechanism works, that is, deviations that occur in the short term are removed, and the series again converge on long-term values. But it is also interpreted that there is a direct causality relationship from the independent variable to the dependent variable based on the causality analysis approach based on the newly developed error correction model.

$$\ln productions_a = \alpha_0 + \alpha_1 \ln markets_a$$

After separating the dependent-independent variable, the long-term equation regarding production was established as above. The ADF unit root test was implemented on the error term series acquired in the long-term analysis for the two series because seeing the model as significant may originate from the false regression problem, and Table 6 identifies the ADF and CRDW values. In order to be able to identify the cointegration relationship between the two variables, the error term series for the model must be examined. As a result of the ADF unit root test to be implemented in this series, false regression will not be a problem in the model if the series is stable.

**Table 6: Model II Cointegration analysis results**

Calculated ADF Value	ADF Critical Value	Calculated DW Value	CRDW Critical Value
-3.86	3.77	2.210	0.511

**Note:** Table values are values taken from Engle-Granger (1987) p. 269, Table II, Model I that have a 1% significance level. CRDW: Cointegration Regression Durbin-Watson.

Since the calculated test statistics are greater than the critical values in Table 6 within absolute value, it was decided that there was a cointegration relationship between the sets. It has been specified with reference to this that the production and market series act together in the long term and that the analyses to be conducted with these series will not contain false regression. These findings indicate that the  $\ln productions_a$  and  $\ln markets_a$  series are cointegrated. It is also supported that these series

are cointegrated with the CRDW test. Because the table value (0.511) in the 1% significance level calculated to test the  $d=0$  hypothesis with 10,000 simulations, each containing 100 observations, ended up being smaller than the CRDW value (1.193) in our model. As a result, the variables in question act together in the long term based on the results of both tests.

After the determination of the cointegration relationship between the series, a short-term analysis was undertaken. The error correction model is formed with the addition in the  $ECM_{(t-1)}$  model of a term-delayed value of the error term series acquired in the long-term analysis. The newly created model reflects the short-term relationship between the series. The new model with which the short-term analysis will be conducted is as follows:

$$\Delta \ln \text{productionsa} = 0.013187 + 0.371247 * \Delta \ln \text{marketsa} - 0.108897 * ECM_{(t-1)} \\ [-2.10]$$

**Table 7: Short-Term Relationship**

Variable	Coefficient	t-statistic
Fixed term	1.122123	[12.15388]
$\ln \text{marketsa}$	1.27658	[3.260148]
$ECM_{(t-1)}$	-0.10	[-2.10]
$R^2 = 0.66$		
F statistic = 147.71		
Prob (Fstat) = 0.00		

As it is seen in Table 7, it is seen that the error correction model coefficient ( $ECM_{(t-1)}$ ) was negative and statistically significant. This term emerging as negative indicates that the short-term deviations converge on balance, meaning the error correction mechanism works. It is seen in the model that a long-term difference (or in the balance value) of 0.10 once every three months between the market value with the observed value of automotive production was eliminated. In case of any kind of external or internal shock causing deviation from the balance based on this, this shows that as much as 10% was able to be corrected after one period (three months in this study). In other words, 10-quarter (2.5 year) short-term deviations again come to long-term stability. This situation demonstrates that the acquired deviations in the period directly converge on a point of balance. It is understood that the deviations that occur in the short term between these sets that succeed in acting together in the long term are removed and converge and that the series converge again on the long-term balance value.

## 6. Conclusion

When assessed in terms of Turkey, the automotive sector is an industrial sector that engages in production, that ensures a high added value to the country's economy, that brings a high currency revenue through exports, that contributes to the development of secondary sectors in which it is a locomotive, and that plays a large role in the development of the country's economy. Therefore, it carries a strategic importance. Turkey became one of Europe's largest automotive producers in the automotive industry together with foreign investment coming to the country, especially after joining the Customs Union. It is also one of the countries that exports the most automobiles to Europe. The Turkish automotive market is a market in which each segment is addressed in terms of either product diversity and quality or in terms of price. Factors like the decrease in the dependent population, the increase in women's labor participation, suitable provision of automobile loans, and economic growth potential increase the growth rate of the automotive market by increasing the demand for vehicles in Turkey. On the other hand, factors such as exchange rate, inflation, high tax rates implemented on motorized vehicles, and economic crises make the market rate of increase fluctuate from year to year and lead to the destabilization of vehicle demand.

One-way causality was determined for the growth of the automotive sector from the rate of increase of national income in the study. Despite the causality relationship between the increase rate of national income and the automotive sector not being reciprocal, meaning the development in the sector being a granger cause, the reason that the increase in the automotive sector is not a granger cause of national income can be dependent on the sector doing production with more imported goods and there being an excessive tax burden over it. Together with the decrease of the sector's dependency



on imported goods and the strengthening of secondary industries in coming years, the positive contribution on national income will increase. Therefore, the contribution of the local automotive production project is very important in this sense.

Another result that emerged from the study is that there is a one-way causality relationship between the rate of increase of national income and the automotive market. That is, the increase in national income between the years 1998-2016 in turn grew the automotive market. Additionally, as a result of the examination of the relationship between the automotive market and automotive production, it is seen that the 10% increase in the market led to 12.7% growth in automotive production. It was concluded that the automotive production and automotive market series were cointegrated and that the short-term deviations converged on the long-term balance.

## 7. Sources

Akgün B. (2010). Türkiye'deki otomotiv sektörü ve örnek bir talep tahmin çalışması [The automotive sector in turkey and a sample demand estimation study]. (Unpublished Master Thesis) Yıldız Technical University, Turkey

Avcu, N. (2016). Türkiye'de otomotiv sektöründe yoğunlaşma ve büyüme üzerindeki etkisi [The effect over concentration and growth in the automotive sector in Turkey]. (Unpublished Master Thesis) Adnan Menderes University, Turkey.

Başkol, M.O. (2009). Türkiye otomotiv sektörünün rekabet gücü üzerine bir değerlendirme [An evaluation over the competitive strength of the turkish automotive sector]. *Mühendis ve Makine Dergisi [Journal of Engineering and Machinery]*, 50(596), 25-34.

Dickey, D. & Fuller W.A. (1979). Distribution of the estimators for autoregressive time series with a unit root. *Journal of The American Statistical Association*, 74, 427-431. doi: 10.2307/2286348

MacKinnon, J.G. (1996). Numerical distribution functions for unit root and co-integration tests. *Journal of Applied Econometrics*, 11, 601-618.

Phillips, P.C.B. & Perron, P. (1988). Testing for a unit root in time series regression. *Biometrika*, 75(2), 336-346. doi:10.2307/2336182

Engle, R. & Granger, C.W.J. (1987). Co-integration and error correction: representation, estimation and testing. *Econometrica*, 55(2), 251-276. doi: 0012-9682(198703)55:2<251:CAECRE>2.0.CO;2-T

Enders, W. (1995). *Applied econometric time series*. (First Edition). Wiley, New York.

Engin, C. & Polat, E. (2010). Türk otomotiv sektörü ve küresel finansal krizin sektöre etkileri (1996-2009) [The turkish automotive sector and the effects of the global financial crisis on the sector (1996-2009)]. *Ekonomi Bilimleri Dergisi [Journal of Economic Sciences]*, 2(1), 35-43.

Ertuğral, S.M. (2011). Otomotiv sektörü ve gümrük birliği sonrası gelişmeleri [The automotive sector and its post-customs union developments]. *Sosyal Bilimler Dergisi [Journal of Social Sciences]*, 2, 75-83.

Görener, A. & Görener, Ö. (2008). Türk otomotiv sektörünün ülke ekonomisine katkıları ve geleceğe yönelik sektörel beklentiler [Contributions of the Turkish automotive sector to the country's economy and sectoral expectations for the future]. *Journal of Yaşar University*, 3(10), 1213-1232.

Gujarati, D.N. (1999). *Basic econometrics*. Mc Graw Hill (Third Edition). İstanbul: Literatür Yayıncılık.

Granger, C.W.J. (1969). Investigating causal relations by econometric models and cross-spectral methods. *Econometrica*, 37(3), 424-438. doi:10.2307/1912791

Perron, P. (1990). Testing for a unit root in a time series with a changing mean. *Journal of Business & Economic Statistics*, 8(2), 153-162.

TSKB (Industrial development bank of Turkey). (2017). Türkiye otomotiv sanayii rekabet gücü ve talep dinamikleri perspektifinde 2020 iç pazar beklentileri [Internal market expectations for 2020 in the perspective of competitive strength and demand dynamics of the Turkish automotive industry]. Otomotiv Sektör Raporu. Sercan Pişkin

KPMG (Audit, tax and consultancy services). (2016). Geleceğin iş modelleri [Business Models for the Future] Türkiye Otomotiv Yöneticileri Araştırma-4 [Turkish Automotive Executives Study - 4], KPMG Türkiye.



# Political Risk and Inflation: Evidence from Turkey

Oktay Kizilkaya, Ferhat Oztutut

## 1. Introduction

In its almost twenty years, Turkey has faced plenty of political instability varying from internal conflicts, dismissals, coup(s), corruption, cabinet changes, etc. In the presence of this political instability, reactive economic policies are implemented to ensure macroeconomic stabilization. However, there is not much room for the implementation of consistent or coherent policies due to the political instability, which eventually weakens the competency of a government and reduces their flexibility to cope with shocks that ultimately leads to macroeconomic disequilibrium such as inflation.

The prevailing effect of political instability on macroeconomic variables such as inflation and GDP in several countries across time has caught the interest of many economists. For instance, Paldam (1987) comparing the path of consumer price increases with data for the incidence of political change and the frequency of military regimes from 1946 to 1984 for eight Latin American countries found that there is a highly significant connection between political instability and the level of inflation. He asserts theoretically that the relationship works both ways. Alesina (1989) also demonstrated that political instability is positively related with inflation for twenty industrialized countries. An early study by Cukierman, Edwards, and Tabellini (1989) also found that a higher degree of political instability is also found to be associated with higher inflation. Using the system-GMM estimator for linear dynamic panel data models on a sample covering 160 countries over the 1960-1999 periods, Aisen and Veiga (2008) reveal that higher degrees of political instability is associated with more volatile inflation rates in developing countries with lower degrees of central bank independence and economic freedom.

The rest of this paper is structured as follows. The next section tries to shed light on the channel through which political instability affects the general level of price level, namely inflation. A survey of the theoretical literature describing the relationship between inflation, political instability with special emphasis on a country like Turkey is presented in Section III and Section IV. The dataset, the empirical models and results are detailed in Section V. Section VI concludes the paper.

## 2. How Does Political (In)Stability Affect Inflation?

As a beginning, the first question that we ask in this paper is the following: How does political (in)stability affect inflation? To answer this question, it is noteworthy first to account for what is meant by the stability of politics or political instability. Conventional political science defines stability primarily in terms of either continuity of system, or the frequency of 'stable' events (Oztutut, 2013) or vice versa. Lipset (1960) argues that a state, regardless of being a liberal democracy or a dictatorship, is politically stable if it is governed by the same regime for twenty five years or more. Rustow (1967) describes that political stability is determined by, and serves as a function of, the constancy of institutions and rulers. Binder (1971) interprets political stability as the 'satisfaction of popular demands, and the fulfilment of the ambitions of newly emerging generations'. Easton (1979) regards political stability in terms of the ability of the political system to absorb changes. Therefore, the system is not politically stable unless it is able to adopt these changes for its persistence. Considering the matter from political instability perspective, Alesina, Özler, Roubini and Swagel (1996) interpret it "as the propensity of a change in the executive, either by constitutional or unconstitutional means".

In this paper, political instability is analyzed in the context of political risk. Political Risk Rating for Turkey used in this study consists of 12 components: government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability and bureaucracy quality. Accordingly, we empirically examine whether 'negative' political climates lead to an increase of inflation.

Why should politically unstable events lead to higher inflation? Recurrent — and unsurprising — waves of political instability may, on the one hand, shorten the governments' average length of stay in

the office, accordingly the horizon of the members of government to implement economic reforms successfully and complete them on time. On the other hand, in an environment where there is political instability, governments increase their spending in order to have the support of the masses in return for fulfilling their demands (Kitingan, 1989), which will eventually raise budget deficits. These arguments are in line with the concept of 'political instability and deficit bias' modelled by Alesina and Tabellini (1990). In these respects, it is difficult for any government under such circumstances to sustain, more specifically, a moderate rate of inflation.

### 3. Some Notes on Inflation and Political Instability: Review of Theories

The determinants of inflation have long interested both economists and central bankers. It can be explained by various factors. The schools of thoughts in Economics provide different theories in this context. Classical school of thought considers inflation as an outcome of monetary expansion and the quantity theory of money as an explanation for this. With regard to budget deficits, they argue that if public expenditures are not financed by an increase in money supply, they can not affect the general level of prices. Nonetheless, the proper transmission mechanism in elucidating this link is lacking.

The traditional Keynesian view is that, monetary expansion does not always result in inflation (Aktan, Kesik & Kaya, 2010). They emphasize demand side to be the major factor responsible in explaining changes in the price level (Corsetti & Roubini, 1997), which emerge as a phenomenon after full employment level. Moreover, according to them, the responsibility of governments is to provide economic equilibrium in the long run, and that budgetary deficits can be an acceptable as a means to reach this aim (Alavirad & Athawale, 2005).

The Monetarists hold money supply as sole reason of inflation. Friedman is the biggest proponent of this school of thought and regarded inflation everywhere is a monetary phenomena. According to their view, fiscal policy is implemented separately from monetary policy, and budget deficits can influence inflation, only if they are monetised (Hamburger & Zwick, 1981). Therefore, if the monetary method is used to finance budget deficits, interest rates decrease in the short term while the overall level of prices increases in the long run. Nevertheless, they argue that the financing of public deficits through fiscal policy (borrowing or increasing taxes) is not deemed to have a significant effect on the basic economic variables such as the general level of prices and employment. In economics, this is called as "Ricardian equivalence".

In practice, the monetarist view derived from the quantitative theory of money has yet recently come under attack. As asset substitution to conduct transactions has increased, given the rapid pace of financial innovations and global deregulation of the financial system, whether the efficiency of affecting prices via the standard nominal money supply was questioned, owing to the amount of financial non-monetary assets being outside the scope of the monetary authority's control (Lozano, 2008). Hence, the nominal interest rate becomes a mechanism used to influence the price level, and the nominal quantitative supply of money ends up being determined endogenously in the money market (ibid).

As a result, many argue instead that inflation is not only a monetary phenomenon, but also financial phenomenon in countries that are struggling with low or moderately high inflation. Hence, fiscalist school of thought is of the view that fiscal policy independently affects the price level and hence the inflation rate; independent of the changes in money growth (or with monetary policy playing at best an indirect role) and dependent on the changes in government debt or budget deficit (Leeper, 1991; Sims, 1994; Woodford, 1994, 1995, 2001; Cochrane, 2001). To put it more explicitly, the general level of prices is determined by the intertemporal budget constraints that relate the debt stock to the budget balance. What is more, the primary surplus cannot be implemented to provide the present value of the budget constraint. In such a case, public debt stock should be resolved by the change of prices and redistribution of wealth (Temiz, 2008). This argument has become known as the fiscal theory of the price level (FTPL)<sup>1</sup>, and also as the quantitative theory of government debt. Hence, if fiscal policy drives the inflation rate, inflation targeting becomes problematic<sup>2</sup> (Carlstrom & Fuerst, 2000).

Why should a greater number of politically unstable events lead to higher inflation? Frequent political crises "... shorten the horizon of the members of government, since they are not certain that

they will keep their posts during an entire term. The higher the probability of being replaced, the greater will the importance attributed to short-term objectives be" (Aisen & Veiga, 2006, 3). Therefore, it is difficult to maintain low inflation. Therefore, politically unstable countries are inclined to high inflation (Cuikerman, Edwards & Tabellini, 1989). The relationship between political instability and inflation is disclosed through interaction mechanisms, two of which are public expenditures and borrowing. The presence *political stability* in any country may entail governments to increase their expenditures and borrowing. In such a case, they are generally inclined to finance these expenditures (e.g. increasing transfer expenditures, infrastructure investments, wages, and salaries) through borrowing rather than by increasing taxation in order to be re-elected (Edwards & Tabellini, 1991). The increase in the borrowing costs arising from this process not only has a negative impact on the public sector but also on the private sector, which ultimately causes inflation to rise.

Another interaction mechanism between inflation and political instability is established through a rise in uncertainty about future inflation. The politically unstable environment creates uncertainty and volatility (Tabassam, Hashmi & Rehman, 2016), which ultimately causes the rise in the general level of prices (Fischer, Sahay & Végh, 2002). The increase in inflation uncertainty, inflationary expectations and transaction costs enhances the cost of borrowing on the one hand while shortening the maturity of debts on the other. These circumstances, in turn, cause cost-push inflation to rise in the long run.

#### 4. Relevance to Turkey

For a long period, the Turkish economy has been one of the cases that have experienced a proportionately high inflation rate, accompanied by high fiscal deficits. Therefore, government deficit expenditures in Turkey have been the subject of much concern in Turkey's current economic agenda. Particularly, the country's inflation and external imbalance are derived significantly from high government spending. This paper argues that *the fiscal theory of the price level (FTPL)* best explains the inflationary effect of budget deficits stemming from political instability environment in Turkey.

The main culprit for the inflationary fiscal stance in Turkey has essentially been due to increasing pressure from the unstable political environment (resulting from socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, military in politics, religious tensions, law and order, ethnic tensions, democratic accountability and bureaucracy quality), which has led lower economic growth for long periods. The successive governments always respond to this undesirable situation by increasing their spending on development projects and infrastructure improvements. Such constant expansion in budget expenditures has not only been because of the aim at overcoming the low growth the country but also of the populist and myopic policies maintained by the decision-making authorities (Alper & Onis, 2003). As a result, such policy has led to excessive borrowing with higher real interest rates namely from domestic and foreign sources (Akyüz & Boratav, 2003), which in turn has led to unsustainable inflation rates in the long run. Accordingly, considering how the budget deficits are financed in Turkey demonstrates a realistic depiction of the inflationary effect of the fiscal deficit.

As stated above, in Turkey, budget deficits have been financed from domestic and foreign sources. The source of finance indicates a different effect of a budget deficit on inflation. Domestic financing is more inflationary than foreign financing in many emerging economies because of the fact that the economies of these countries are characterized by inefficient capital markets and high dependency on developed countries for foreign reserves. Therefore, domestic financing is mostly obtained by borrowing from the banking system which is often monetized by the government. As a result, it can be argued that a politically unstable environment causing governments to increase their spending for short-term gains has led to more volatile inflation rates in Turkey for a prolonged term.

#### 5. Data Set and Method

In this study, the effects of political instability on inflation were examined in Turkey using quarterly data 1998Q2-2016Q2. To analyze political instability (*pi*) and inflation (*inf*), Political Risk Rating and the Consumer Price Index (CPI) series are used respectively. What is more, *gdp* (Growth %) variables

considered to be significant impacts on the inflation rate have been included in the model. The relationship between the variables is examined using the following model;

$$\text{Model: } \inf = f(pi, gdp)$$

The Political Risk Rating is used by the PRS Group as an assessment tool to determine the political stability of a country. The purpose of the political risk rating is to provide a means for comparatively assessing the political stability of the countries covered by the International Country Risk Guide (ICRG). The risk ratings range from the highest 100 (lowest risk) and the lowest 0 (highest risk), and the lower the risk rating of a country, the higher the political risk. Political Risk Rating consists of 12 components: government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, the military in politics, religious tensions, law and order, ethnic tensions, democratic accountability and bureaucracy quality.

In the study; the stationarity of the series is investigated initially by Augmented Dickey-Fuller (ADF) unit root test. In the second phase; The existence of the cointegration relation between the series is tested by Gregory-Hansen (1996) cointegration test. In the third phase; Long-term relationships between the series are estimated by Dynamic OLS (DOLS) method. In the fourth phase, the causality relation between the series is investigated by the bootstrap causality test proposed by Hacker and Hatemi-J (2012).

### 5.1. Unit Root Test

The property of the unit root process is that a shock has a long-lasting effect. Although there are many unit root tests, the Dickey-Fuller (DF) Test and its extension, the Augmented Dickey-Fuller (ADF) Test, are the most commonly used and easy to implement unit root test (Wooldridge, 2015). In order to determine whether series include unit roots or not Augmented Dickey-Fuller (ADF) unit root test is utilized. The obtained test results are presented in Table 1.

**Table 1: ADF Unit Root Test Results**

Include in Test Equation	Variable	ADF Test Statistics	Critical Values		
			(%1)	(%5)	(%10)
Intercept	<i>inf</i>	-2.429 [5]	-3.531	-2.905	-2.590
	$\Delta inf$	-3.346 [4]**	-3.531	-2.905	-2.590
	<i>pi</i>	-1.641 [4]	-3.530	-2.904	-2.589
	$\Delta pi$	-4.230 [3]*	-3.530	-2.904	-2.589
	<i>gdp</i>	-1.747 [5]	-3.531	-2.905	-2.590
	$\Delta gdp$	-6.999 [4]*	-3.531	-2.905	-2.590
Trend and Intercept	<i>inf</i>	-1.593 [5]	-4.100	-3.478	-3.166
	$\Delta inf$	-3.824 [4]**	-4.100	-3.478	-3.166
	<i>pi</i>	-2.299 [5]	-4.098	-3.477	-3.166
	$\Delta pi$	-4.582 [3]*	-4.098	-3.477	-3.166
	<i>gdp</i>	-1.495 [5]	-4.100	-3.478	-3.166
	$\Delta gdp$	-7.082 [4]*	-4.100	-3.478	-3.166

**Note:** The values in square brackets indicate the suitable lag length of variables determined according to AIC (Akaike Information Criteria). \*, \*\*, and \*\*\* indicate stationary at the 1%, 5% and 10% significance levels, respectively.

As can be seen from Table 1, according to the results of the ADF test statistic, it is concluded that the *inf*, *pi* and *gdp* variables used in the analysis include unit root in the level value and the series are I (1). The results obtained in the ADF test statistic, the necessary precondition for the examination of the Gregory-Hansen cointegration relation is provided.

## 5.2. Cointegration Analysis

Another problem encountered in econometric analyzes using time series data is that non-stationary variables cause spurious regression in the model (Göktaş, 2005). There are two ways to avoid spurious regression. The first is using the variables by making them stationary. The most common technique for making stationary is taking the difference. However, the process of taking the difference eradicates the long-term dynamics of the series. The second is using the cointegration analysis (Sevüktekin & Nargeleçekenler, 2010). In order for regression analyzes carried out with non-stationary time series to be meaningful and to reflect real relationships, one thing that is essential is the presence of a cointegration relationship between these time series (Gujarati, 1999).

In the case of structural breaks in the series, cointegration tests will give deviating results. For this reason, the effects of structural breaks must be taken into account in the cointegration tests. In Gregory and Hansen (1996) cointegration test, the breaking point is intrinsically determined and considers the single structural break. Gregory and Hansen (1996) developed three different models (Gregory & Hansen, 1996) to test for cointegration relations between the series in the presence of structural breaks:

*Level Shift (Model C);*

$$y_{1t} = \mu_1 + \mu_2 DU_t + \alpha^T y_{2t} + e_t \quad (1)$$

In this model,  $\mu_1$  is the intercept before the shift, and  $\mu_2$  represents the change in the intercept at the structural break time.

*Level Shift with Trend (Model C / T);*

$$y_{1t} = \mu_1 + \mu_2 DU_t + \mu_3 t + \alpha^T y_{2t} + e_t \quad (2)$$

Model C / T is obtained by adding the term Trend to Model C.

*Regime Shift (Model C/S);*

$$y_{1t} = \mu_1 + \mu_2 DU_t + \alpha_1^T y_{2t} + \alpha_2^T y_{2t} DU_t + e_t \quad (3)$$

In this case  $\mu_1$  and  $\mu_2$  are defined in the Model C. Here,  $\alpha_1^T$  is the slope coefficients before the regime shift,  $\alpha_2^T$  denotes the change in the slope coefficients. The Model C / S include dummy variables that allow breaking at both intercept and slope.

Here, given that  $n$  is the number of observations,  $\tau \in (0, 1)$  is the (relative) timing of the change point, and  $[ ]$  is the integer part; the dummy variable  $DU$  is described as follows (Gregory and Hansen, 1996).

$$DU_t = \begin{cases} 1 & \text{if } t \leq [n\tau], \text{ ise} \\ 0 & \text{if } t > [n\tau], \text{ ise} \end{cases}$$

Models for each possible structural breakpoint ( $\tau$ ) in the Gregory-Hansen test are estimated by the OLS method and the Philips test statistics ( $Z_\alpha^*$  and  $Z_t^*$ ) and ADF test statistic ( $ADF^*$ ) is calculated with resulting. The date that these statistics are at minimum is determined as the appropriate break time. When the calculated test statistics are larger than the critical value by the absolute value, the null hypothesis (no cointegration) is rejected and it is decided that there is a cointegration relation between the series and the structural break. Gregory-Hansen (1996) cointegration test results are presented in Table 2.

**Table 2:** Gregory-Hansen Cointegration Test Results

Model	ADF Statistics	Critical Values			Break Time (TB)
		%1	%5	%10	
C	-5.617*	-5.44	-4.92	-4.69	2008Q4
C/T	-5.791**	-5.80	-5.29	-5.03	2002Q1
C/S	-8.715*	-5.97	-5.50	-5.23	2003Q1

**Note:** \*, \*\*, and \*\*\* indicate cointegration at the 1%, 5% and 10% significance levels, respectively.

When the results in Table 2 are examined, it is seen that the test statistics calculated in all three models are higher than the critical values by absolute value, so a cointegration relation can be observed between the series. The series moves along in the long term, and long-term analysis that is made by



the level values of this series will not contain spurious regression. In this case, it is decided that it is henceforward possible to estimate the long-term cointegration coefficients between the series.

### 5.3. Estimation of Long-Term Cointegration Coefficients

Dynamic Ordinary Least Squares (DOLS) method proposed by Stock-Watson (1993) is used to obtain long-term cointegration coefficients in the study. The DOLS method produces strong and consistent estimates in the case of internaly and autocorrelation problems in explanatory variables. Stock-Watson (1993) suggests that, in order to remove the problems of internaly, besides the level values of the explanatory variables, the lag and the lead of their first differences should be included in the model. In addition, this method can solve the problem of autocorrelation with the generalized LS method. In the study, long-term cointegration coefficients were estimated by DOLS methods and the obtained results have been presented in Table 3.

**Table 3: Long-Term Cointegration Coefficients**

Variables	Coefficient	t-statistic	Prob
<i>pi</i>	1.46	-4.74	(0.000)
<i>gdp</i>	-2.01	-1.85	(0.069)
<i>pi</i> * <i>DU</i>	1.62	5.04	(0.000)
<i>gdp</i> * <i>DU</i>	1.98	1.69	(0.095)
<i>DU</i>	-161.11	-6.74	(0.000)
<b>Constant Term</b>	161.66	7.02	(0.000)
<b>Equation</b>	$inf = 161.66 + 1.46 \pi - 2.01 gdp + 1.62 \pi * DU + 1.98 gdp * DU - 161.11 DU$		

In Table 3, the cointegration equation shows the long-term relationship regarding Model C / S. When models are examined, there is a positive and statistically significant relationship between political instability (*pi*) and inflation (*inf*). According to DOLS estimates, the results show that in the long term the increase in political instability increases inflation. The coefficient of the *pi* variable is 1.46 according to the cointegration equation. When models are examined, there is a negative and statistically significant relationship between growth (*gdp*) and inflation (*inf*). The coefficient of the *gdp* variable is -2.01 according to the cointegration equation.

### 5.4. Causality Analysis

The use of Granger's (1969) causality tests has been increasing in studies where time series data are used, and particularly in empirical studies in economics and finance. In the causality analysis developed by Granger (1969), stationary states of the series are used. Toda and Yamamoto (1995), on the other hand, proposed an approach that permits different degrees of integration of the series. Hacker and Hatemi-J (2006) followed the Toda-Yamamoto procedure (1995) and showed that the use of the bootstrap approach produced better results in determining critical values. In the Hacker and Hatemi-J (2006) approach, the estimated VAR model and the lag length are determined exogeneity. In the bootstrap causality test proposed by Hacker and Hatemi-J (2012), unlike Hacker and Hatemi-J (2006), they investigated the cases in which the order of lag is determined endogeneity. This test is also based on the VAR model like the Hacker and Hatemi-J (2006) causality test, and the optimal lag length is determined by bootstrap simulation (Hacker & Hatemi-J, 2012).

In this study, the bootstrap causality test proposed by Hacker and Hatemi-J (2012) is applied and the results have been presented in Table 4.

**Table 4:** Hacker and Hatemi-J (2012) Bootstrap Causality Test Results

	MWALD	VAR(p)	Bootstrap Critical Values		
	Test Statistic		%1	%5	%10
$pi \Rightarrow inf$	51.307*	5	17.366	11.894	9.909
$gdp \Rightarrow inf$	13.818**	5	16.700	12.079	9.778
$inf \Rightarrow pi$	7.184	5	17.886	12.632	10.101
$inf \Rightarrow gdp$	6.070	5	17.135	12.854	10.336
$gdp \Rightarrow pi$	0.335	1	6.634	4.361	2.987
$pi \Rightarrow gdp$	0.350	1	7.794	3.934	2.779

**Note:** \*, \*\* and \*\*\* represent causality in level of significance of 1%, 5% and 10%, respectively. Optimal lag length Var (p) is determined according to HJC (Hatemi-J Information Criteria).

Table 4 indicates that, since the MWALD statistical values showing the causality relationship from the political instability ( $pi$ ) series to the inflation ( $inf$ ) series and from the growth ( $gdp$ ) series to the inflation ( $inf$ ) series are larger than the critical value calculated by the bootstrap method, the null hypothesis is rejected. In other words, it is determined that there is a causality relationship between from the  $pi$  series to the  $inf$  series and from the  $gdp$  series to the  $inf$  series.

## 6. Conclusion

This paper examines whether political instability has an impact on inflation in the Turkish economy using the 1998Q2-2016Q2 period data. In this context, firstly, the stationary of the series is tested with the ADF unit root test and found to become stationary when the first differences were taken. The existence of the cointegration relation between the series is tested by the cointegration test of Gregory-Hansen (1996) and it has been found that there is a cointegration relation between the series, that is to say, the series moved in concert in the long term. The long-term cointegration coefficients are estimated by DOLS method and the analysis shows that there is a positive relation between political instability and inflation. In addition, the causality relation between the series has been examined by the bootstrap causality test proposed by Hacker and Hatemi-J (2012). It has been concluded that there is a causality relationship between from the political instability ( $pi$ ) series to the inflation ( $inf$ ) series and from the growth ( $gdp$ ) series to the inflation ( $inf$ ) series.

We argue that this is due to low and intermediate budget-deficit policies maintained by the decision-making authorities for fear of losing next election, which also indicate a possible fiscal theory of price levels in Turkey in the long run. Here is a point that deficits today are more highly correlated with future inflation than with current inflation, that is to say, it may take some time for deficits to be felt in the form of higher inflation.

In countries with political instability, the most important obstacle to the success of economic policies aimed at lifting macroeconomic instabilities altogether is public trust in governments. Therefore, such trust is a key to ensuring long-term stable economic success. Reducing inflation, in particular, depends on the lowered expectation of inflation, in general on the long-term stability of politics. Or else, the higher the probability of political instability, the greater will the inflation rates be. All in all, taking the effects of political instability on the general level of prices into consideration, it is crucial to take steps towards reducing the risk factors which result in a politically unstable environment.

## 7. References

- Aisen, A., & Veiga, F. J. (2006). Does political instability lead to higher inflation? A panel data analysis. *Journal of Money, Credit, and Banking*, 38(5), 1379-1389.
- Aisen, A., & Veiga, F. J. (2008). Political instability and inflation volatility. *Public Choice*, 135(3-4), 207-223.
- Aktan, C. C., Kesik, A. ve Kaya, F. (2010). A New Trend in the Management of Fiscal Policy: Rules and Limitations on Tax, Expenditure, Debt, etc. Directorate of Strategy Development, Ministry of Finance. Issue: 2010/408.

- Akyüz, Y., & Boratav, K. (2003). The making of the Turkish financial crisis. *World Development*, 31(9), 1549-1566.
- Alavirad, A. and Athawale A. (2005), The Impact of the Budget Deficit on Inflation in the Islamic Republic of Iran. *OPEC Review*, (March), 37-49.
- Alesina, A., Özler, S., Roubini, N., & Swagel, P. (1996). Political instability and economic growth. *Journal of Economic growth*, 1(2), 189-211.
- Alesina, A., & Tabellini, G. (1990). A positive theory of fiscal deficits and government debt. *The Review of Economic Studies*, 57(3), 403-414.
- Alper, C. E., & Onis, Z. (2003). Financial globalization, the democratic deficit, and recurrent crises in emerging markets: The Turkish experience in the aftermath of capital account liberalization. *Emerging Markets Finance and Trade*, 39(3), 5-26.
- Binder, L. (1971). Crises of political development. *Crises and sequences in political development*, 3-72.
- Carlstrom, C. T., & Fuerst, T. S. (2000). The fiscal theory of the price level. *Economic Review-Federal Reserve Bank of Cleveland*, 36(1), 22.
- Christiano, L. J., & Fitzgerald, T. J. (2000). Understanding the fiscal theory of the price level (No. w7668). *National bureau of economic research*.
- Cochrane, J. H. (2001). Long-Term Debt and Optimal Policy in the Fiscal Theory of the Price Level. *Econometrica*, 69(1), 69-116.
- Corsetti, C./Roubini N. (1997). Politically Motivated Fiscal Deficit: Policy Issues in Closed and Open Economy. *Economic and Politics*, 9(1), 27-54.
- Cukierman, A., Edwards, S., & Tabellini, G. (1989). Seigniorage and political instability (No. w3199). *National Bureau of Economic Research*.
- Easton, D. (1979). *A framework for political analysis*. Chicago: University of Chicago Press.
- Edwards, S., & Tabellini, G. (1991). Explaining fiscal policies and inflation in developing countries. *Journal of International Money and Finance*, 10, S16-S48.
- Fischer, S., Sahay, R., & Végh, C. A. (2002). Modern hyper-and high inflations. *Journal of Economic Literature*, 40(3), 837-880.
- Göktaş, Ö. (2005). *Teorik ve Uygulamalı Zaman Serileri Analizi*. İstanbul: Beşir Kitabevi.
- Gregory, A. W., & Hansen, B. E. (1996). Residual-based tests for cointegration in models with regime shifts. *Journal of econometrics*, 70(1), 99-126.
- Gujarati, D. N. (1999): *Basic Econometrics*. International Edition, Prentice-Hall International, Inc.
- Hacker, S., & Hatemi-J, A. (2012). A bootstrap test for causality with endogenous lag length choice: theory and application in finance. *Journal of Economic Studies*, 39(2), 144-160.
- Hamburger, M. J., & Zwick, B. (1981). Deficits, money and inflation. *Journal of Monetary Economics*, 7(1), 141-150.
- Hein, S. E. (1981). Deficits and inflation. *Review, Federal Reserve Bank of St. Louis*, 63(3).
- Huntington, S. P. (2006). *Political order in changing societies*. Yale University Press.
- Jeffrey G. Kitingan. (1989). *Causes of political instability: framework for analysis*. Institute for Development Studies (Sabah).
- Leeper, E. (1991). Equilibria under 'Active' and 'Passive' Monetary and Fiscal Policies. *Journal of Monetary Economics*, 27, 129-147.
- Lipset, S. M. (1960). *Political man: The social basis of modern politics*. NY: Doubleday.
- Lozano, I. (2008). Budget deficit, money growth and inflation: evidence from the Colombian case. *Banco de la República*.
- Paldam, M. (1987). Inflation and political instability in eight Latin American countries 1946-83. *Public Choice*, 52(2), 143-168.
- Rustow, D. A. (1967). *A World of Nations: Problems of Political Modernization* (p. 94290).
- Sevüktekin, M., & Nargeleçekenler, M. (2010). *Ekonometrik zaman serileri analizi: EViews uygulamalı*. Nobel Yayın Dağıtım.
- Sims, C. A. (1994). A simple model for study of the determination of the price level and the interaction of monetary and fiscal policy. *Economic theory*, 4(3), 381-399.

Stock, J. H., & Watson, M. W. (1993). A simple estimator of cointegrating vectors in higher order integrated systems. *Econometrica: Journal of the Econometric Society*, 783-820.

Tabassam, A. H., Hashmi, S. H., & Rehman, F. U. (2016). Nexus between political instability and economic growth in Pakistan. *Procedia-Social and Behavioral Sciences*, 230, 325-334.

Temiz, D. (2008). Fiyat Düzeyinin Mali Teorisi (FTPL): Türkiye'nin 1980-2005 Dönemi için Model Uygulamaları. Ankara Üniversitesi, Sosyal Bilimler Enstitüsü, Dktisat Anabilim Dalı. Washington, DC: Brookings Institution.

Woodford, M. (1994). Monetary Policy and Price Level Determinacy in a Cash-in-Advance Economy. *Economic Theory*, 4(3), 345-380.

Woodford, M. (1995, December). Price-level determinacy without control of a monetary aggregate. In *Carnegie-Rochester Conference Series on Public Policy* (Vol. 43, pp. 1-46). North-Holland.

Woodford, M. (2001). Fiscal requirements for price stability (No. w8072). National Bureau of Economic Research.

Wooldridge, J. M. (2015). *Introductory Econometrics: A Modern Approach*. Nelson Education.

<sup>1</sup> See, Christiano & Fitzgerald (2016) and Carlstrom & Fuerst (2000) for a detailed review of the FTPL.

<sup>2</sup> See also, Hein, S. E. (1981) for more about how deficits influence the general level of prices



## **The Cointegration Relationship Between Interest Rate And Exchange Rate: The Case of Turkey**

Gokhan Konat, Mehmet Temiz

### **1. Introduction**

The main policy tool used by the Central Bank to achieve its basic objective which is price stability, is interest rates. In addition to this primary goal of monetary authority, it is necessary to take essential precautions to ensure financial stability in the light of recent developments in global markets. In this context, interest rates have a great importance for central banks in order to maintain financial stability, both in terms of price stability.

Interest rates, which play an important role in conducting money and exchange rate policy, acts as a balancing factor in struggling with unexpected exchange rate fluctuations. Despite a few opposed views, it is argued that high interest rates prevent currency fluctuations.

There are different notions about the relationship between interest rates and exchange rates. Rising interest rates, in an open economy where capital movements are not restricted, could increase capital inflows and so exchange rates will decline. As we accept the interest rate as a determinant of the money demand, it can be mentioned that there is a positive relationship between the interest rates and the exchange rates. An increase in interest rates will cause inflation by reducing demand for the national currency. As a result, the national currency will depreciate and this may cause the exchange rate to rise (Karaca, 2005).

On the other hand, the rise in interest rates can shift the demand of domestic and foreign investors to the domestic currency. Investors sell their foreign currency assets and direct them to the domestic investment instruments. This transition towards the domestic currency reduces the exchange rates by increasing the value of the domestic currency. Likewise, as the decline in interest rates increases the demand for foreign assets, domestic currency lose its the value and exchange rates increases. So, there will be a negative relationship between interest rates and exchange rates (Taylor, 1995).

When we looked from the other sight of the relationship we can see various theoretical views. For example, in an open economy with perfect capital mobility and flexible exchange rate regime, an appreciation in the exchange rate initially increases export revenues and so national income of the country. This increase in income causes interest rates to rise with the positive impact of the high demand for money. Also according to loanable funds theory, an appreciation in the exchange rates decreases the foreign capital flows to economy. By the fall in the supply of loanable funds the equilibrium value of the interest rates decreases. Lastly, an increase in exchange rates also effects the general price level of the economies. Especially, in an import dependent developing country an increase in exchange rates causes a rise in both imported goods prices and production costs. As mentioned in Fisher Equation, exchange rates increases the actual and expected inflation, so the interest rates will rise too (Demirgil and Karaca, 2017).

Besides the existence and direction of the relation, there are different opinions about the size of the relationship between these two variables. While some studies shows a strong relationship between them, some studies indicates that the relationship is too weak. In following section, researchs studied about our subject will be detailed briefly.

### **2. The Literature Review**

It can be seen that the relationship between the exchange rates and the interest rates is searched for especially crisis periods in general literature. Goldfajn and Baig(1998), examined the relation between two variables during the period of 1997-1998 for Asian Countries (Korea, Indonesia, Malaysia, Thailand and the Philippines) by using VAR Model based on impact-response function and found no strong correlation between interest rates and exchange rates. Kraay (2000), investigated the relationship between interest rates and exchange rates during speculative movement periods in 75 developed and developing countries between 1960-1997, and concluded that the high interest rate policy can not be

accepted in struggling with exchange rate fluctuations. Deckle et al.(2002), examined the relation between interest rates and exchange rates during the Asian Crisis in Korea, Malaysia and Thailand, and found that there is a negative but weak relationship between these two variables. Cho and West (2003) tested the relationship between two variables for the exchange rate crises in Korea, the Philippines and Thailand during the 1997–98, found that an exogenous increase in interest rates caused exchange rate appreciation in Korea and the Philippines but depreciation in Thailand. For same three countries, using a simple linear expectation model Kim and Ratti (2006), provided evidence that sharp increase in the interest rate result in business failures that further deepen exchange rate crisis. One standard deviation shocks in the interest rate is associated with statistically significant response (depreciation) in the exchange rate in both 3 countries. Chow and Kim (2004), investigated the the relationship between interest rates and exchange rates for Indonesia, Korea, the Philippines and Thailand with the help of weekly data from 1993 to 2002. Analysis results determined that there is not a strong relationship between the related variables. Brailsford et al.(2006), tested the effects of exchange rates on interest rates, during the Asian Crisis, for the South Korean, Philippine, Thai and Malaysian economies. In countries except Malaysia, they found that interest rates have an effect on exchange rates.

Dash (2004), found a strong negative relation between variables in his study for India in which he did not limited the relationship with crisis periods. Chen (2006), investigated the relationship between interest rates and exchange rates in the case of six developing countries by using Markov regime switching approach. Emprical results showed that increase of the nominal interest rate leads to a high probability of switching to a regime with more volatile exchange rate. Choi and Park (2008), investigated the relationship between two variables during the Asian crisis period using a VAR model. They rejected using of a tight monetary policy, with high interest rates, in stabilizing exchange rates. Hacker et al. (2014), used wavelet analysis to investigate causality between the spot exchange rate and the nominal interest rate differentials for seven country pairs. Causality tests showed that the nominal interest rate differentials Granger causes the exchange rate as the wavelet time scale increases. According to impulse responses there seems to be some evidence of more negative relationships at shorter time scales and more positive relationships at longer time scales.

Also the relationship between two variables has been the subject of research and various studies have been made on this issue for Turkey. Studies give different results as in general literature. An earlier study, Agenor et al. (1997), developed a VAR model determines the relationship between fiscal policy, interest rate differentials, real exchange rates and capital movements in Turkey. The results showed that nterest rate differentials lead to an appreciation in the real exchange rate and this effect is significant. Berument (2001) estimated the relationship between interbank interest rates and exchange rates using the VAR analysis for the period of 1986-2000. Results showed that tight monetary policies lead to the appreciation of exchange rates. Aysoy and Kıpıcı (2002), found that an increase in overnight interest rates cause nominal exchange rates to decline in their studies that includes the period from 1987 to 2001 for Turkish Economy. Gümüş (2002), analyzed the effect of high interest rates on exchange rates during the 1994 crisis using the VAR Model. Estimation results showed that an increase in long-term interest rates causes exchange rates to decline.

Karaca (2005) analyzed the relationship between the exchange rate and the interest rate using the monthly data for the period 1990-2005, with the help of the cointegration test and the delayed autoregressive model. Findings showed that there is no significant relationship between the exchange rates and the interest rates, but there is a positive but weak causality during the floating exchange rate period (2001-2005). Gül et al. (2007), tested the interaction between nominal exchange rates and interest rates in Turkey with Cointegration and Granger causality tests. The results obtained show that there is no cointegration between the variables and the causality relation is from the exchange rates to the interest rates. Akçağlayan (2008), investigated the effect of exchange rate on monetary policy for 2001 crisis period with the error correction model and Toda-Yamamoto. Findings revealed a weak causality relation from interest rate to exchange rate during the crisis period, but it also showed that there is no causality in the opposite direction. She concluded that a rise in interest rate causes domestic currency depreciation by indirect channels. Tarı and Abasız (2009), analysed the relationship between short term nominal interest rates and nominal exchange rates during the period of 1987:01-2008:01 for

Turkey by using frequency domain approach within the framework of spectral analysis. They found no evidence for casual relationship from interest rates to exchange rates.

Kayhan et al. (2013), examined the dynamic relationship between real interest rates and real exchange rate in BRIC-T (Brazil, Russia, India, China and Turkey) countries. Results showed that there is two sided causality relation in Turkey, one way causality from real interest rates to real exchange rates in India, one way causality from exchange rate to interest rate in China and no causality relationship between variables in Brazil and Russia. Doğan et al. (2017) examined volatility spread effect between exchange rate and interest rate in Turkey with threshold value ARCH (TARCH) analysis. Results indicated that interest rate volatility increases exchange rate volatility. Demirgil and Karaca (2017), investigated the existence of a long-term relationship between interest rate and exchange rate series in Turkey using the ARDL boundary test approach within the years 2009-2016. Findings showed that there is a cointegration relation between series. For the period analysed, exchange rate affect interest rate positively and the relation is statistically significant.

### 3. Data Set and Analysis

In this study, we investigate the interest rate and exchange rate in Turkey within the period of 2002:03-2017:11. The existence of the cointegration relation between the series is tested by the structural break cointegration test of Hatemi-J (2008). Firstly, stationarity of series is tested by the Augmented Dickey-Fuller (ADF) unit root test and the Lumsdaine-Papell structural break unit root test. Secondly, the existence of cointegration relation between the series is tested by Hatemi-J (2008) structural break cointegration test. Lastly, long term relationships between the series are estimated by dynamic least squares (DOLS) method. Data used in the study ((fo) for interest rate, (dk) for exchange rate) are obtained from the Central Bank Electronic Data Distribution System (EVDS) web page.

#### 3.1. Unit Root Test

The decisive feature of the unit root process is the long lasting effect of a shock. Although there are many unit root tests, the Dickey-Fuller (DF) test and its extended version, the Augmented Dickey-Fuller (ADF) test, are the most widely used unit root tests. The equations to be estimated in the ADF test are listed as follows:

$$\Delta Y_t = \delta Y_{t-1} + \sum_{i=1}^m \alpha_i \Delta Y_{t-i} + u_t \quad (1)$$

$$\Delta Y_t = \beta_1 + \delta Y_{t-1} + \sum_{i=1}^m \alpha_i \Delta Y_{t-i} + u_t \quad (2)$$

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^m \alpha_i \Delta Y_{t-i} + u_t \quad (3)$$

The  $H_0$  null hypothesis, which indicates that the series have an unit root, is as follows:  
 $H_0: \delta = 0$

If the null hypothesis  $H_0$  is rejected, it is decided that the series are stationary around its mean according to Equation(2) and trend stationary according to Equation (3). For determining the integrated degrees of the variables the ADF unit root test is applied. The test values obtained are shown in Table

**Table 1: ADF Unit Root Test Results**

Variables	ADF Test Statistic	Critical Values		
		(%1)	(%5)	(%10)
<i>dk</i>	-0.032 [2]	-4.008	-3.434	-3.141
$\Delta dk$	-9.219 [1]*	-4.008	-3.434	-3.141
<i>fo</i>	-2.360 [1]	-4.008	-3.434	-3.141
$\Delta fo$	-9.443 [0]*	-4.008	-3.434	-3.141



**Note:** On the level and in the first difference, fixed term models are used. Values in square brackets indicate the appropriate lag length of the variables, as determined according to SIC. \*, \*\* ve \*\*\* respectively, significance level at 1% , 5% and 10% represents the stationary.

According to the results of the ADF test statistic in Table 1, we can see that the *fo* and *dk* variables contain unit root in the level and stationary in the first difference, I(1).

In such series with structural break, tests that do not take structural breaks into account may give wrong results about unit root process. To overcome this deficiency, the Lumsdaine-Papell structural break unit root test, has been applied. Furthermore, in the case of more than one break occurred in the series, tests which allow only one break will be less powerful for explaining economic variables. For this reason, Lumsdaine and Papell (1997) developed a unit root test that allows two breaks in the series. Lumsdaine-Papell (1997) two breaks unit root test is an improved version of Zivot-Andrews (1992) single break unit root test. They called the regression equations used in the model as Model AA and Model CC. Model AA allows two breaks only at intercept but Model CC allows two breaks at both intercept and trend.

The Model AA regression equation is as follows:

$$\Delta y_t = \mu + \beta t + \alpha y_{t-1} + \theta_1 DU1_t + \phi_1 DT2_t + \sum_{i=1}^k d_i \Delta y_{t-i} + e_t \quad (4)$$

The dummy variables in the Model AA regression equation are defined as follows:

$$DU1_t = \begin{cases} 1 & t > TB_1 \\ 0 & \text{In other cases} \end{cases}, DU2_t = \begin{cases} 1 & t > TB_2 \\ 0 & \text{In other cases} \end{cases}$$

Where  $TB_1$  is the first break level and  $TB_2$  is the second break level.

The Model CC regression equation is as follows:

$$\Delta y_t = \mu + \beta t + \alpha y_{t-1} + \theta_1 DU1_t + \phi_2 DT1_t + \theta_2 DU2_t + \phi_1 DT2_t + \sum_{i=1}^k d_i \Delta y_{t-i} + e_t \quad (5)$$

The dummy variables in the Model CC regression equation are defined as follows:

$$DT1_t = \begin{cases} t - TB_1 & t > TB_1 \\ 0 & \text{In other cases} \end{cases}, DT2_t = \begin{cases} t - TB_2 & t > TB_2 \\ 0 & \text{In other cases} \end{cases}$$

Where  $TB_1$  and  $TB_2$  are as defined above. In the model all possible break pairs are tested and the model is added. The break dates ( $TB_1$  ,  $TB_2$ ) where the t-statistics of  $\alpha$  are minimum are selected. Test hypotheses are as follows:

$H_0$ : Series have unit root without structural change.

$H_1$ : The series is stationary by two structural breaks.

Table 2 shows the results of the Lumsdaine-Papell structural break unit root test.

**Table 2:** Lumsdiane and Papell (1997) Unit Root Test Results

	<i>dk</i>		$\Delta dk$	
	Model AA	Model CC	Model AA	Model CC
<b>Test Statistic</b>	-1.9685	-5.2877	-9.4854*	-9.7103*
<b>Lag Length</b>	12	12	1	1
<b>First Break Time</b>	2006:06	2007:08	2008:08	2007:01
<b>Second Break Time</b>	2015:01	2014:01	2014:11	2009:03
	<i>fo</i>		$\Delta fo$	
	Model AA	Model CC	Model AA	Model CC
<b>Test Statistic</b>	-4.3619	-6.4515	-6.9633*	-7.4771*
<b>Lag Length</b>	6	6	11	11
<b>First Break Time</b>	2008:11	2004:11	2005:04	2006:05
<b>Second Break Time</b>	2011:01	2008:12	2008:11	2010:02
Critical Values				
	%1	%5	%10	
<b>Model AA</b>	-6.74	-6.16	-5.89	
<b>Model CC</b>	-7.19	-6.75	-6.48	

**Note:** . \*, \*\* ve \*\*\* respectively, significance level at 1% , 5% and 10% represents the stationary.

When Table 2 is examined, it can be seen that the null hypothesis ( $H_0$ ) can not be rejected. According to Lumsdaine-Papell structural break unit root test results, all series are not stable at the level, but they are stable in the first difference,  $I(1)$ . The results are consistent with the ADF test results. Since the Hatemi-J (2008) cointegration test which is going to be applied in the next section allows the analysis to be performed provided that the series are  $I(1)$ , the necessary condition for the examination of the cointegration relation is provided.

### 3.2. Cointegration Analysis

Another problem encountered in econometric analysis which uses time series is, causing spurious regression in model estimates of non-stationary variables (Göktaş, 2005). It is possible to avoid the spurious regression by two ways. The first is to use the stationary levels of the variables. The most common stationary process is to take the difference of the series. However, taking difference eliminates the long-term relations of the series. The second way is applying cointegration analysis. (Sevüktekin ve Nargeleçekenler, 2010). There must be a cointegration relationship between nonstationary time series to be meaningful and reflect real relations (Gujarati, 1999).

In the case of structural breaks in the series, cointegration tests that do not take into account structural breaks will also give bias results. For this reason, the effects of structural breaks must be taken into account in the cointegration tests, too. The Hatemi-J (2008) cointegration test is the counterpart of the Lumsdaine-Papell unit root test in cointegration test literature. Hatemi-J (2008) cointegration test is an improved version of the Gregory-Hansen (1996) cointegration test. While an endogenous break is allowed in the Gregory-Hansen (1996) cointegration test, two endogenous breaks are allowed in the Hatemi-J (2008) cointegration test. As in other cointegration tests, Hatemi-J (2008) cointegration test requires all series to be  $I(1)$ . Hatemi-J (2008) tries to explain the effect of two structural breaks, both intercept and trend, taking into account the following model:

$$y_t = \alpha_0 + \alpha_1 D_{1t} + \alpha_2 D_{2t} + \beta'_0 x_t + \beta'_1 D_{1t} x_t + \beta'_2 D_{2t} x_t + u_t \quad (6)$$

In the equation  $\alpha_0$  and  $\beta'_0$  show the intercept term and trend parameter before the structural changes take place respectively.  $\alpha_1$  and  $\alpha_2$  show the change in the intercept term due to the first and second break, respectively.  $\beta'_1$  and  $\beta'_2$  show the effect of first and second structural break on trend, respectively.  $D_{1t}$  and  $D_{2t}$  represent dummy variables and are defined as follows.

$$D_{1t} = \begin{cases} 0, & t \leq [n\tau_1] \\ 1, & t > [n\tau_1] \end{cases}$$

$$D_{2t} = \begin{cases} 0, & t \leq [n\tau_2] \\ 1, & t > [n\tau_2] \end{cases}$$

The unknown parameters  $\tau_1 \in (0,1)$  and  $\tau_2 \in (0,1)$  represent the structural break points. Test hypotheses are as follow:

$H_0$ : There is no cointegration between series,

$H_1$ : Cointegration between series with two structural break.

To test the null hypothesis, the test statistic  $ADF^*$ ,  $Z_\alpha$  and  $Z_t$  is used. The  $ADF^*$  test statistic is obtained by applying the ADF unit root test statistic to residuals obtained from equation (6). (Yılancı ve Öztürk, 2010).

$Z_\alpha$  and  $Z_t$  test statistics are based on the computation of the bias corrected first order serial correlation coefficient estimate. Where  $\hat{p}^*$  is calculated as follows.

$$\hat{p}^* = \frac{\sum_{t=1}^{n-1} (\hat{u}_t \hat{u}_{t+1} - \sum_{j=1}^B w(j/B) \hat{\gamma}(j))}{\sum_{t=1}^{n-1} \hat{u}_t^2} \quad (7)$$

Where  $w(\cdot)$  is a function that provides core weights that combine standard conditions for spectral density estimators.  $B$  (an  $n$  function of itself),  $B \rightarrow \infty$  is the number of bandwidths that provide the condition and it is  $B/n^5 = O(1)$ .  $\hat{\gamma}(j)$  is the autocovariance function and expressed as follows:

$$\hat{\gamma}(j) = \frac{1}{n} \sum_{t=j+1}^n (\hat{u}_{t-j} - \hat{\rho} \hat{u}_{t-j-1}) (\hat{u}_t - \hat{\rho} \hat{u}_{t-1}) \quad (8)$$

Where  $\hat{\rho}$  is least squares estimate of the (non-constant) effect of  $\hat{u}_{t-1}$  on  $\hat{u}_t$  (Hatemi-J, 2008).  $Z_\alpha$  test statistic is as following.

$$Z_\alpha = n(\hat{p}^* - 1) \quad (9)$$

$Z_t$  test statistic is as following.

$$Z_t = \frac{(\hat{p}^* - 1)}{(\hat{\gamma}(0) + 2 \sum_{j=1}^B w(j/B) \hat{\gamma}(j)) / \sum_{t=1}^{n-1} \hat{u}_t^2} \quad (10)$$

Where  $\hat{\gamma}(0) + 2 \sum_{j=1}^B w(j/B) \hat{\gamma}(j)$  show the long-run variance estimates of the residuals obtained from the regression of  $\hat{u}_{t-1}$  on  $\hat{u}_t$ .

Where  $ADF^*$ ,  $Z_\alpha$  ve  $Z_t$  test statistics have non-standard distribution. In application, the smallest of the test statistics calculated for all  $\tau_1$  and  $\tau_2$  pairs, with  $\tau_1 \in T_1 = (0.15, 0.70)$  and  $\tau_2 \in T_2 = (0.15 + \tau_1, 0.85)$ , is used when  $T = (0.15n, 0.85n)$ .

**Table 3:** Hatemi-J (2008) Cointegration Results

	Test Statistics	% 1	% 5	% 10	Break Date
Model C/S (Regime Shift)	- 5.82***	- 6.503	- 6.015	- 5.653	2009:01 and 2011:07

**Note:** \*, \*\* ve \*\*\* respectively, significance level at 1% , 5% and 10% represents the cointegration relationships.

When the results in Table 3 are examined, it can be seen that there is a cointegration relation between the series. The series move together in the long run, and the long-term analysis performed by the level values of these series do not contains spurious regressions.

### 3.3. Estimation of Long Term Cointegration Coefficients

Dynamic Least Squares (DOLS) method also produces strong and robust estimates in the presence of endogeneity and autocorrelation problems in explanatory variables. Stock-Watson (1993), suggests that the lag and the lead values of the first differences should be included into the model both with the level values of the explanatory variables, in order to resolve the endogeneity problems. In addition, this method can solve the problem of autocorrelation with the generalized least squares method.

The long term cointegration coefficients in the study were estimated by the DOLS method, and the obtained results are presented in Table 4.

**Table 4:** Long Term Cointegration Coefficients

Variable	Coefficient	t- statistics	Prob.
$fo$	0.009*	6.69	(0.000)
Constant Term	-77.05	-5.04	(0.00)
K1	86.13	5.27	(0.000)
K2	-8.72	-0.63	(0.5280)
K1*dk	-72.14	-6.33	(0.000)
K2*dk	0.92	0.59	(0.558)

**Note:** \*,% 1, \*\*;% 5, \*\*\*;% 10 respectively represents the significance of the coefficients at significance level. K1: January 2009, K2: July 2011

Table 4 shows the long term relationship of the cointegration equation. According to the model results, there is a positive and statistically significant relationship between interest rate and exchange rate series. According to the cointegration equation, the coefficient of interest rate variable ( $\beta$ ) was obtained as 0,009. Since the variables in the model have cointegration relationship and  $\beta$  coefficient is greater than 0, there is a long-term positive relationship between them. But it seems that the relationship is not very strong.

#### 4. Conclusions and Recommendations

The relationship between interest rates and the exchange rate has been subject to both academic and political scene. Especially fluctuations in crisis periods will bring about serious problems. In order to contribute to discussion this study has been carried out. The relationship between interest rates and the exchange rates in Turkey during the period of 2002:03 to 2017:11 is examined with long term cointegration analysis. In this context, stationarity of the series is tested with ADF unit root test and Lumsdaine-Papell structural break unit root test at first. Series are not stationary at the level, but become stationary when their first difference is taken. After, the existence of cointegration relation between the series has been tested by structural break cointegration test of Hatemi-J (2008) and it has been found that there is a cointegration relation between the series, that is, the series move together in the long run. Long term cointegration coefficients estimated by the DOLS method and results show that there is a positive and statistically significant relationship between interest rates and exchange rates. According to the cointegration equation, the coefficient of the interest rate variable is 0,009. It shows that there is a long-term positive relationship between interest rate and exchange rate. But it shows that the degree of the relationship is weak.

These results suggest that when Central Bank lowered the interest rates this may not lead to increase exchange rates. In other words, the decrease in interest rates will cause a decrease in exchange rates. The results obtained for underresearched period for Turkey, confirms the theoretical argument, which says variables move together and have a positive relationship, stated in former sections of the study.

#### References

- Agenor, P. R., Mc Dermott C. J., & Ucer E. M. (1997). *Fiscal Imbalances, Capital Inflows and the Real Exchange Rate: The Case of Turkey*. IMF Working Paper no: 97/1. 1-31.
- Aysoy, C., & Kıpıcı A. N. (2002). *A Quarterly Macroeconometric Model of the Turkish Economy*. Central Bank of the Republic of Turkey.
- Berument, H. (2001). *Measuring Monetary Policy for A Small Open Economy: Turkey*. Bilkent University Working Paper, 2001
- Brailsford, T., Jack, H., Penm, W., Lai, C. D. (2006), Effectiveness of High Interest Rate Policy on Exchange Rates: A Reexamination of the Asian Financial Crisis. *Journal of Applied Mathematics and Decision Sciences*, Volume 2006, Article ID: 35752.
- Chen, S. S. (2006). Revisiting the interest rate–exchange rate nexus: A Markov switching approach. *Journal of Development Economics*, 79(1), 208-224.
- Cho, D. & West, K. D. (2003). Interest rates and exchange rates in the Korean, Philippine and Thai exchange rate crises. In M. P. Dooley & J. A. Frankel (Eds.), *Managing currency crises in emerging markets* 11-35.
- Choi, I., Park, D., (2008). Causal relation between interest and exchange rates in the Asian currency crisis. *Jpn. World Econ.* 20, 435–452.
- Chow, H. K. & Kim Y. (2004), *The Empirical Relationship Between Exchange Rates and Interest Rates in Post-Crisis Asia*. Singapore Management University Economics and Statistics Working Paper Series, (11), 2004.
- Dash, P. (2004) *The Relationship between Interest Rate and Exchange Rate in India*. Paper Presented at the *Sixth Annual Conference on Money and Finance in the Indian Economy*, March 25-27, Mumbai.
- Dekle, R., Hsiao, C., & Wang, S. (2002). "High Interest Rates and Exchange Rate Stabilization in Korea, Malaysia and Thailand: An Empirical Investigation of the Traditional and Revisionist View. *Review of International Economics*, 10(1), 64-78.
- Demirgil, B. And Karaca, C. (2017), *An Empirical Study On Interest Rate Exchange Rate* Paper Presented at the *2. International Congress on Political, Economic and Social Studies (ICPESS)*, Sakarya.
- Dickey, D.A., & Fuller, W.A. (1981). Likelihood ratio statistics for autoregressive time series with a unit root. *Econometrica*, 49, 1057-1072.
- Dickey, D.A., & Fuller, W.A. (1979). Distributions of the estimators for autoregressive time series with a unit root. *Journal of the American Statistical Association*, 74, 427-431.

- Doğan, İ., Afsal, M. Ş., Aydın, S., & Gürbüz, S. (2017). Periodic Analysis of Interest Rates and Exchange Rates; Turkey Example. *International Journal of Academic Value Studies*, Vol:3, Issue:13, 199-205
- Goldfajn, I., & Baig, T. (1998). *Monetary Policy in the Aftermath of Currency Crises: The Case of Asia*. International Monetary Fund Working Paper, 98/170, Washington D.C.
- Gül, E., Ekinci, A., & Özer, M., vd. (2007), The Causal Relationship Between Interest Rates and Exchange Rates in Turkey:1984-2006. *İktisat İşletme ve Finans*, Year: 22, No: 251, 21-31.
- Göktaş, Ö. (2005). *Teorik ve Uygulamalı Zaman Serileri Analizi*. İstanbul: Beşir Kitabevi.
- Gujarati, D. N. (1999). *Basic Econometrics*. Mc Graw Hill. 3rd Edition. İstanbul: Literatür Yayıncılık.
- Gümüş, I. (2002), "Effects of the Interest Rate Defence of Exchange Rates During the 1994 Crisis in Turkey", *TCMB Working Paper*, No: 14, Ankara.
- Hacker, R. S., Karlsson, H. K., & Mansson, K., (2014). An investigation of the causal relations between exchange rates and interest rate differentials using wavelets. *Int. Rev. Econ. Financ.* 29, 321-329.
- Hatemi-J, A., (2008), Tests for Cointegration with Two Unknown Regime Shifts: With An Application to Financial Market Integration, *Empirical Economics*, 35, 497-505.
- Karaca, O. (2005). *Relationship Between Interest Rate and Exchange Rate in Turkey: Does Decreasing Interest Rates Increase Exchange Rates?*. Turkish Economic Association, Discussion Paper, 2005/14, October 2005, 1-17.
- Kayhan, S.; Bayat, T., & Uğur A., (2013). Interest Rates and Exchange Rate Relationship in BRIC-T Countries. *Ege Academic Review*, 13(2), 227-236.
- Kim, J. K., & Ratti, R. A., (2006). Economic activity, foreign exchnage rate, and the interest rate during the Asian crisis. *Journal of Policy Modeling*, 28, 387-402.
- Kraay, A. (2000). *Do High Interest Rates Defend Currencies against Speculative Attacks?*. Word Bank Working Paper, no:2267
- Lumsdaine, R. L., & Papell, D. H. (1997). Multiple Trend Breaks And The Unit-Root Hypothesis. *The Review Of Economics And Statistics*, 79(2), 212-218.
- Sevüktekin, M., & Nargeleçekenler, M. (2010). *Ekonometrik zaman serileri analizi: EViews uygulamalı*. Nobel Yayın Dağıtım.
- Stock, J. & Watson, M. W. (1993). A Simple Estimator of Cointegrating Vectors in Higher Order Integrated Systems. *Econometrica*, 61(4), 783-820.
- Tarı, R., & Abasız, T., (2009). Frequency Domain Approach And Short Run And Long Run Causality Test: Evidence From Turkey For İnterest Rate And Exchange Rate Relationship. *METU Studies in Development*, 36, 405-421
- Taylor, James B. (1995), *Economics*. Boston: Houghton Mifflin Company.
- Yılcı, V., & Öztürk, Z. A., (2010), Analysis of Integration Relationship Between Equity Markets of Turkey And Its Major Trading Partners': Unit Root And Cointegration Tests With Structural Breaks, *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, Volume:36, 261-279.

# Panel Data Analysis By Selected Variables Of Income Inequality In European Countries

Hatice Kucukkaya, Yasemin Bozdaglioglu

## 1. Introduction

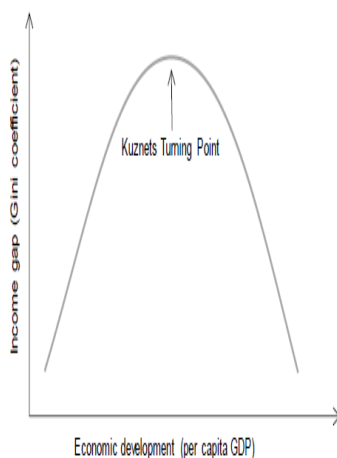
Global inequality and the determinants of it have been studied much in recent years. This paper aims to investigate income inequality in European countries. Though it is already known that inequality is increasing in many countries, income inequality is increasing in EU countries, too. Recent studies of global income inequality mostly concentrates on rising inequality in EU countries. There are few analyses of income inequalities from a perspective of EU countries in the literature. But almost none of them has given place to socioeconomic dimension. In this paper, the relationship between income inequality and its socioeconomic factors in Europe are examined. Realizing this relationship, the problem of rising income inequality can be handled in Europe.

When we look at the empirical literature on this issue, usually it is seen that high and rising inequality harms societies in many respects, not least in terms of economic field. It can be said that with rising income inequality, the socio-economic divide has been on the rise in Europe over the past decades, and has intensified since the onset of the global financial crisis. This divide can hamper social cohesion, results in lost opportunities for many, and can even result in worse health outcomes (OECD, 2017).

From the viewpoint of OECD 2016 report, in 2008, the economic crisis hit many OECD countries, notably the European area. Unemployment peaked above 8% in 2010 in the OECD area and reached 11% during 2013 in Europe. The recent economic recovery has improved real average incomes, but more rapid growth of top incomes and weaker improvement at the bottom meant that overall income inequality did not reduce. In the southern European countries, ever since 2007 real incomes at the bottom 10% have been falling between 12% and 28% annually and more severely hit than those in the middle and at the top of the distribution (OECD, 2016).

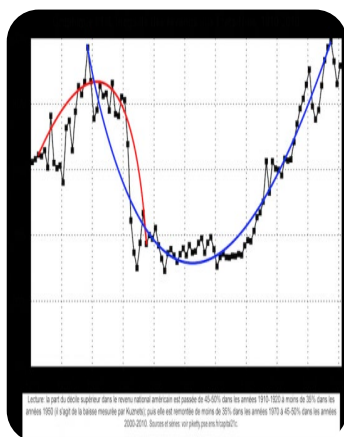
In the view of such information, analyzing the income inequality issue in European countries, policies and institutions matter as WID report says. Rising inequality cannot be viewed as a mechanical, deterministic consequence of globalization or technological change, as most economic models assume.

Before analyzing the income inequality trends and consequences of income inequality in European countries, we want to focus on the existing literature of income inequality trends. We can group these trends as mentioned below:



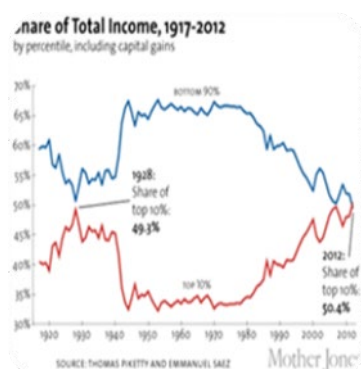
### 1. Analyses with Kuznets Curve (Reverse-U Trend)

Kuznets (1955), Milanovic (1994), Piketty and Saez (2001), Gustaffson and Johansson (1997), Melchior et al (2000), Piketty (2003)



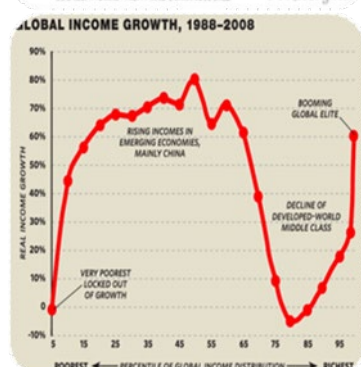
## 2. Analyses with U Trend

Atkinson (2002), Neckerman ve Torche (2007), Alvaredo et al (2013), Roser et al (2015)



## 3. Analyses Focusing on Convergence

Ravallion (2002), Bao ve Dhongde (2009), Gallup (2012), Lin ve Huang (2012), Dhongde ve Miao (2013), Chambers ve Dhongde (2016)



## 4. Analyses Focusing on Elephant Curve

Lakner ve Milanovic (2013), Milanovic (2016), Alvaredo et al World Wealth and Income Database Working Paper (December, 2017)

In addition to all these, this study takes a look on income inequality in European countries by modelling the subject in a panel data form. The outline of the study is as follows. In the section 2, we describe the data and methodology. The empirical findings are presented in the section 3. The final section comprises our conclusions.

## 2. Data and Methodology

In the empirical studies which concern about income inequality, the data issue has mostly been a problematic. In the 1990s, Deinenger-Squire (1996) database has been used in a wide range of empirical literature. However in recent years, various databases have become prominent. Some of these are; Unu-Wider World Income Inequality Database (WIID), The Standardized World Income Inequality Database (SWIID), The World Wealth and Income Database (WWID), University of Texas Inequality Project (EHII) and The Chartbook of Economic Inequality. On the other hand, the significant point in the analysis is what the aim of the study is and whether the calculation method of Gini coefficient deals with the subject appropriately (Bozdaglioglu and Kucukkaya, 2017).

Aforementioned databases and those used in the literature have been investigated and Unu-Wider World Income Inequality Database (WIID) database has been found convenient for this study. Ginis for all countries were taken from this database which has been compiled by United Nations University. Our

exploration of income inequality in European countries starts in 1970, as a result because of data availability limitations we can analyze 18 European countries.

The data, which is also used with Gini indices in this study, are Political Rights (PR) and Civil Liberties (CL) indices attained from Freedom House database. PR and CL are measured on a one-to-seven scale, with one representing the highest degree of Freedom and seven the lowest.

In this study, belonging to 18 European countries over the period 1970-2015 five-year multi-data has been utilized. Multi-data has been compiled for analysis, because both Gini coefficient and Political Rights (PR) and Civil Liberties (CL) indices in one country don't vary in a year. So, these data in annual form is so stable for using panel regressions. Therefore, both classic panel estimations such as OLS and dynamic panel data methods are preferred for this study. By this way, we can compare these two estimation techniques.

In the study, 18 transition economies for the period 1970-2015 five-year data run two determined models. The equations used in these regression models are as follows:

$$\text{Gini}_{i,t} = \alpha + \beta \text{PR} + \eta_i + \xi_t + u_{i,t} \quad (1)$$

$$\text{Gini}_{i,t} = \alpha + \beta \text{CL} + \eta_i + \xi_t + u_{i,t} \quad (2)$$

Where  $\text{Gini}_{i,t}$  denotes the Gini index of country  $i$  ( $i = 1, 2, \dots, N$ ) at time  $t$ ,  $\alpha$  denotes constant term, PR denotes political rights, CL denotes civil liberties,  $\beta$  denotes coefficient of the independent variables (political rights and civil liberties) and  $u_i$  is a mean zero error term. Equation 1 is estimated by using panel Ordinary Least Squares (OLS). Equation 2 is estimated by using two-step Arellano and Bond GMM estimator. With this estimation political right indice is also used as instrumental variable.

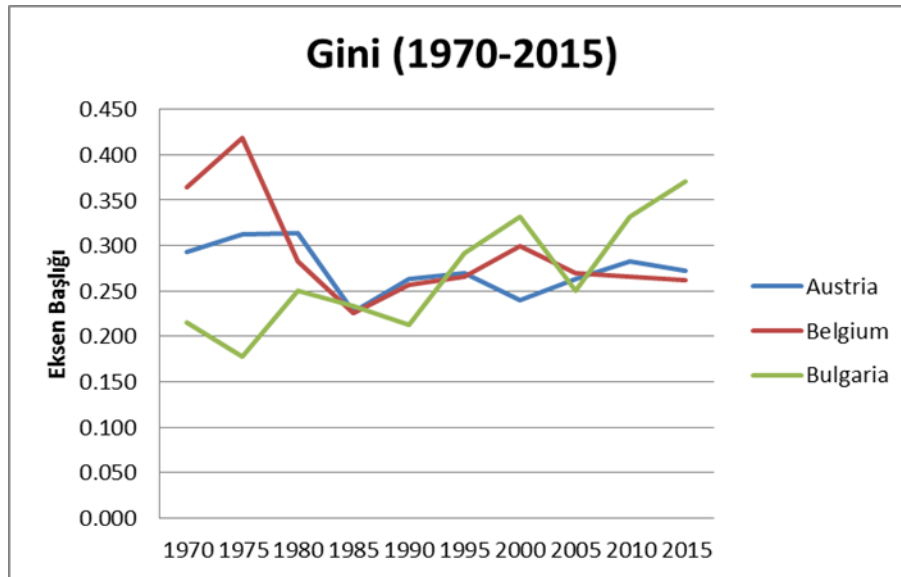
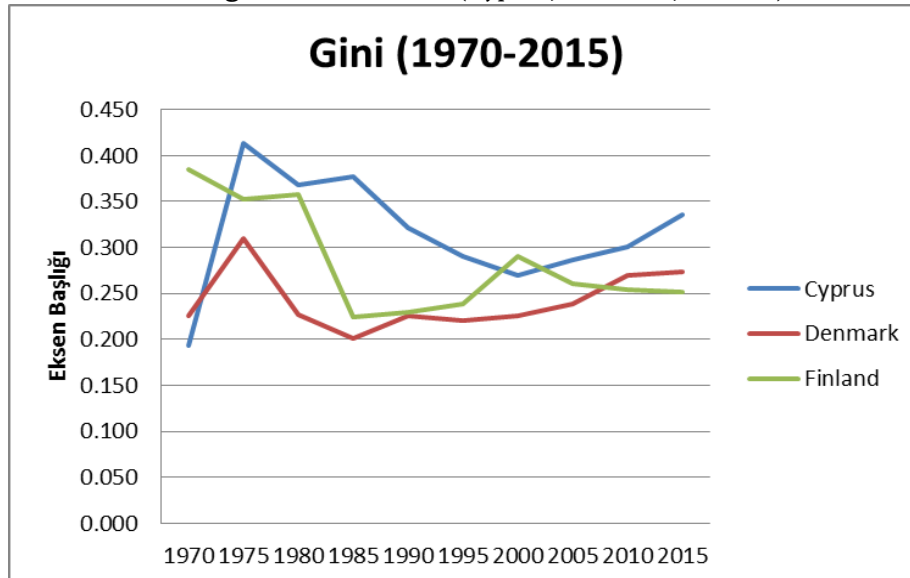
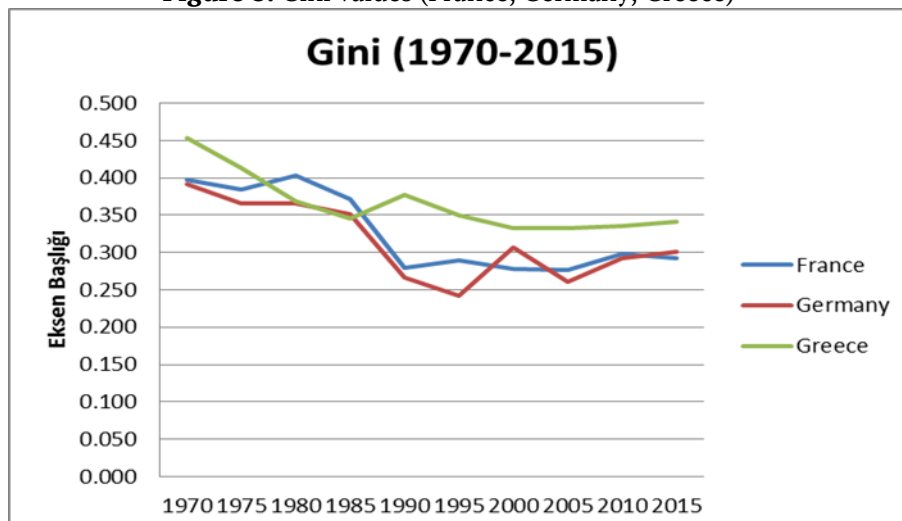
Under certain assumptions, the method of least squares has some very attractive statistical properties that have made it one of the most powerful and popular methods of regression analysis. (Gujarati, 2004). By the reason of the deficits of OLS estimations on some models, dynamic panel models are developed for the models including lagged values of dependent variable. Among those models, Anderson and Hsiao (1982), Arellano (1989), Ahn and Schmidt (1995), and Arellano and Bond (1991) can be named.

On this context, Arellano and Bond proposed a generalized method of moments (GMM) technique which is more efficient than the Arellano and Hsiao (1982) estimator. Arellano and Bond (1991) argues that additional instruments can be obtained in a dynamic panel data model if one utilizes the orthogonality conditions that exist between lagged values of dependent variable and the disturbances. Finally, the estimator results with two steps, after these steps acquired, dependent variables from two equations are asymptotically equivalent if the disturbance terms are iid (Baltagi, 2001, 130-131).

After determining estimation techniques of models, to understand the European economies' income inequality trends, graphics of gini indexes of countries are composed. In these graphics, all European economies are appeared in. Every graphic consists of three countries and all countries are represented in six graphics.

According to graphics of gini values, it can be seen that income inequalities in all countries have risen in 2010 compared to 1990. We can categorize European countries' income inequality trends as 'elephant curve' like Lakner and Milanovic (2013) has mentioned.



**Figure 1.** Gini values (Austria, Belgium, Bulgaria)**Figure 2.** Gini values (Cyprus, Denmark, Finland)**Figure 3.** Gini values (France, Germany, Greece)

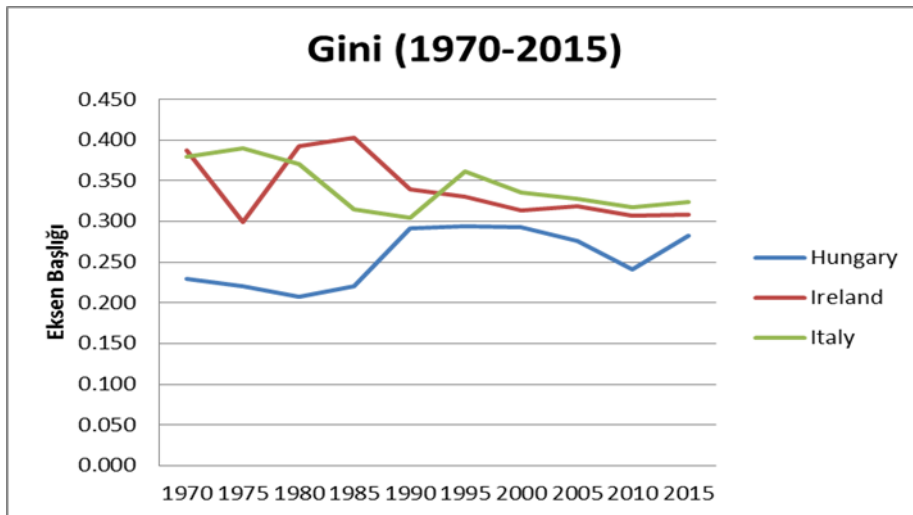


Figure 4. Gini values (Hungary, Ireland, Italy)

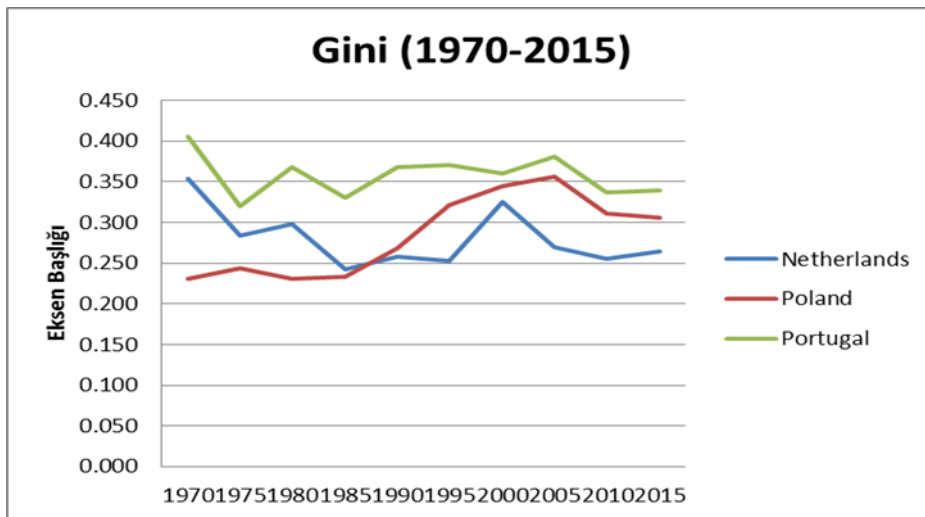


Figure 5. Gini values (Netherlands, Poland, Portugal)

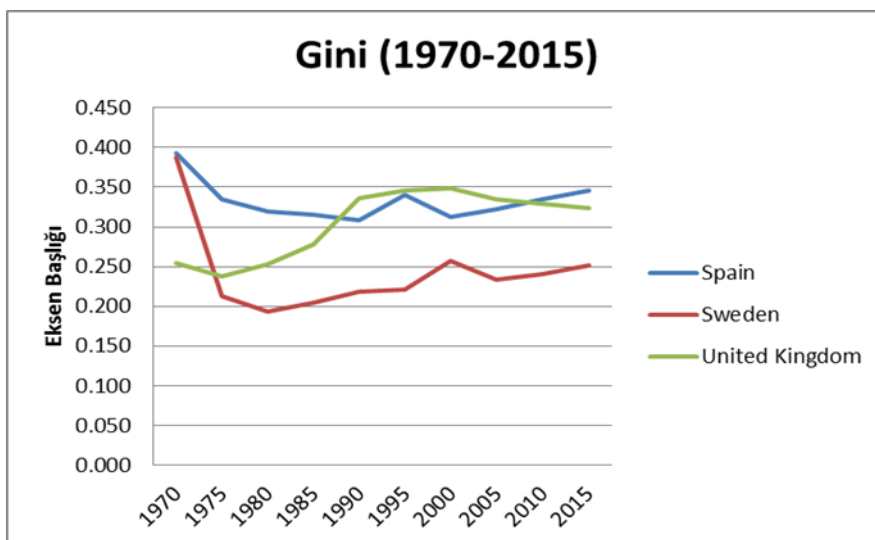


Figure 6. Gini values (Spain, Sweden, United Kingdom)

### 3. Empirical Findings

In this section, aforementioned equations 1 and 2 are estimated using varied panel data techniques. Equation 1 is estimated by using OLS, while equation 2 is estimated by two-step Arellano and Bond estimator and also weighted Two-Stage Least Squares (2SLS). In both equations gini values are dependent variable for the model, because it is aimed to find the effects of political rights and civil liberties indices on income inequality scores of European countries.

In first equation, only the political rights indice is analyzed to find the change in income inequality. First equation has estimated and presented in Table 1. In second model, when the political rights indice is an instrumental variable, the civil liberties indice is taken as independent variable. By this way, the change in income inequality in European countries is aimed to analyze with both indices. Thus, we can see the effects of indices, totally. Second equation has estimated and presented in Table 2.

**Table 1.** OLS Results for Model 1

<i>Gini dependent</i>		
Variable	Coefficient	p-value
c	0.310591	0.0000***
PR	-0.005915	0.0316**

**Table 2.** GMM Results for Model 2

<i>Gini dependent (PR instr.)</i>		
Variable	Coefficient	p-value
c	0.314356	0.0000***
CL	-0.007212	0.0278**

Note: \*, \*\*, \*\*\* denotes 10%, 5% and 1% significance levels respectively.

According to Table 1, the political rights indice is regressed on income inequality and it has statistically significant at 5% significance level. The political rights indice affects income inequality negatively. Where the political rights indice increases, there gini coefficient decreases.

According to Table 2, the civil liberties indice is regressed on income inequality and it has statistically significant at 5% significance level. The civil liberties indice also has a negative effect on income inequality. Where the civil liberties indice increases, there gini coefficient decreases.

### 4. Conclusion

This paper presents both a technical summary and an empirical example of income inequality trends in European countries in the period 1970-2015. Rising inequality cannot be viewed as a mechanical, deterministic consequence of globalization or technological change, as most economic models assume. In this study, belonging to 18 European countries over the period 1970-2015 five-year multi-data has been utilized. Both classic panel estimations such as OLS and dynamic panel data methods (GMM) are preferred for this study. By this way, we can compare these two estimation techniques.

By estimating OLS, only the political rights indice is analyzed to find the change in income inequality. The political rights indice is regressed on income inequality and it has statistically significant at 5% significance level. The political rights indice affects income inequality negatively. Where the political rights indice increases, there gini coefficient decreases.

In second model, when the political rights indice is an instrumental variable, the civil liberties indice is taken as independent variable. By this way, the change in income inequality in European countries is aimed to analyze with both indices. the civil liberties indice is regressed on income inequality and it has statistically significant at 5% significance level. The civil liberties indice also has a negative effect on income inequality. Where the civil liberties indice increases, there gini coefficient decreases.

Finally, this study demonstrates that income inequality trends in European countries are 'elephant curve' and proves the relation between income inequality and political rights and civil liberties.

## 5. References

- Ahn, S. C. & Schmidt, P. (1995). Efficient estimation of models for dynamic panel data. *Journal of Econometrics*, 68, 5-27.
- Alvaredo, F., Chancel, L., Piketty, T. Saez, E., & Zucman, G. (2017). The elephant curve of global inequality and growth, *WID.world Working Paper Series*, 20.
- Alvaredo, F., Atkinson, A. B., Piketty, T., & Saez, E. (2013). The Top 1 percent in international and historical perspective, *Journal of Economic Perspectives*, 27(3), 3-20.
- Anderson, T. W. & Hsiao, C. (1982). Formulation and estimation of dynamic models using panel data. *Journal of Econometrics*, 18(1), 47-82.
- Arellano, M. (1989). A note on the Anderson-Hsiao estimator for panel data. *Economics Letters*, 31(4), 337-341.
- Arellano, M. & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and application to employment equations. *The Review of Economic Studies*, 58(2), 277-297.
- Atkinson, A B, (2002), Top incomes in the United Kingdom over the twentieth century, *Discussion Paper in Economic and Social History*, No 43.
- Baltagi, B. (2001). *Econometric analysis of panel data*, John Wiley&Sons, United Kingdom.
- Bao, Y. & Dhongde, S. (2009). Testing convergence in income distribution. *Oxford Bulletin Of Economics and Statistics*, 71(2), 295-302.
- Bozdaglioglu, E. Y., & Kucukkaya, H (2017). Where are the Transition Economies in Income Inequality Path?. In R. Yilmaz, M. A. İcbay, & H. Arslan (Eds.), *Research and Development on Social Sciences* (pp. 149-154). Bialystock: E-Bwn.
- Chambers, D. & Dhongde, S. (2016). Convergence in income distributions: Evidence from a panel of countries, *Economic Modelling*, 59, 262-270.
- Gallup, J. L. (2012). The global convergence of income distribution.
- Gujarati, D. N. (2004). *Basic Econometrics* (4<sup>th</sup> ed.). NewYork: The McGraw-Hill Companies.
- Gustaffson, B. & Johansson, M. (1997). In search for a smoking gun: what makes income inequality vary over time in different countries?, *LIS Working Paper*, 172.
- Neckerman, K. M., & Torche, F. (2007). Inequality: causes and consequences. *The Annual Review of Sociology*, 33, 335-357.
- Kuznets, S. (1955). Economic growth and income inequality. *American Economic Review*, xlv(1).
- Melchior, A., Telle, K. & Wiig, H. (2000). Globalisation and inequality world income distribution and living standards, 1960-1998, *Royal Norwegian Ministry of Foreign Affairs Studies on Foreign Policy Issues Report*, 6B.
- Milanovic, B. (2016). *Global Inequality* (1<sup>st</sup> ed.). Harvard University Press.
- Milanovic, B. (1994). Determinants of cross-country income inequality an augmented 'Kuznets' hypothesis. *The World Bank Policy Research Working Paper*, 1246.
- OECD (2017). *Understanding The Socio-Economic Divide in Europe*. Centre for Opportunity and Equality Background Report.
- OECD (2016). *Inequality Update-November 2016*. Centre for Opportunity and Equality Background Report.
- Piketty, T. (2003). Income inequality in France, 1901–1998, *Journal of Political Economy*, 111(5), 1004-1042.
- Piketty, T. & Saez, E. (2001). Income inequality in the United States, 1913-1998. *NBER Working Paper*, 8467.
- Ravallion, M. (2002). Inequality convergence. *WB Policy Research Working Paper Series*, 2645.
- Roser, M., Nolan, B., & Thewissen, S. (2015), Inequality or living standards: which matters more?, *Income & Wealth*.
- ATG (All The Ginis Dataset). (2013), from <https://www.gc.cuny.edu/Page-Elements/Academics-Research-Centers-Initiatives/Centers-and-Institutes/Stone-Center-on-Socio-Economic-Inequality/Core-Faculty,-Team,-and-Affiliated-LIS-Scholars/Branko-Milanovic/Datasets>
- EHII, University of Texas Inequality Project, from <http://www.utip.lbj.utexas.edu>

Freedom House, Freedom in the World, from <https://freedomhouse.org/report/freedom-world/freedom-world-2017>

SWIID, Standardized World Income Inequality Database, from <http://fsolt.org/swiid/>

UNU-WIDER, Unu-Wider World Income Inequality Database (WIID), from <http://www.wider.unu.edu>

WWID, The World Wealth and Income Database, from <http://www.parisschoolofeconomics.eu/en/research/the-world-wealth-income-database/>

# Green Star Hotel Selection with Fuzzy TOPSIS Method: Case of Istanbul

Ahmet Oztel, Ayhan Karakas, Ahmet Aslan

## 1. Introduction

Today, the tourism sector, as well as all over the world is in a rapid growth in Turkey. Hotel establishments constitute one of the most important building blocks of the tourism sector; It also provides a social service with the ability to meet the needs of traveling people such as accommodation, eating and drinking, entertainment and rest. Given the contributions made by the hospitality industry to employment, the economy and other sectors, the accommodation industry is the locomotive of the tourism industry and represents one of the most important subsystems.

Accommodation enterprises, which are an important subsystem of the tourism industry; which produces labor-intensive goods and services, sells a wide variety of goods and services to meet the needs of temporary accommodation, eating-drinking, part-time entertainment and other social needs of tourists with different components, makes production and sale under the same roof, are in close contact with the customer face to face. The aim of this study is to select the best green star hotel in Istanbul using the fuzzy TOPSIS method.

Today, hotel businesses are becoming increasingly difficult to sustain their assets without considering environmental issues, and hotel businesses have important duties, such as protecting the local environment and contributing to the local community (Yu-Chin, 2012). Environmental management practices in hotel businesses include waste recycling, waste management, energy conservation, water protection, legislative alignment, procurement policies and environmental education (Chan Wilco, 2009; Kotler, Bowen & Makens, 2010; Middleton, 2000) Increasing the number of customers who prefer environment-conscious businesses can be a good marketing strategy for them to position themselves as a green hotel in tourism businesses to gain competitive advantage (Kamal & Vinnie, 2007).

In addition to gaining a competitive edge, differentiating themselves from similar, but non-green operations, and fulfilling customers' needs for environmentally friendly hotels, green hotels eventually bring various benefits to the operation (e.g., reductions in energy consumption and operational costs, enhancement of the company's image, coping with government regulation, and positive public attention) (Han, Hsu, & Sheu, 2010b). Although, in the lodging industry, previous studies have examined environmental management/practices, green strategies related to the environmental policies, and customers' green preferences and attitudes toward green practices, little research has focused on hotel customers' decision-making processes when selecting a green hotel. More specifically, a thorough theoretical/empirical explanation regarding the formation of hotel selection criteria to choose a green hotel over the alternatives has been rare (Claver-Cortés, Molina-Azorín, Pereira-Moliner, & López-Gamero; Han, Hsu, & Sheu, 2010a).

## 2. Literature Review

### 2.1 Hotel Industry in Turkey

The essential functions of the hotels are to provide accommodation for the guests. Besides this service, they can also provide auxiliary and complementary units for the guests' eating and drinking, sports and entertainment needs. The first hospitality establishments, which are seen as inns and caravanserais, have developed and changed over the past years and as a result of increasing travel opportunities, the quality and quantity of the accommodation enterprises have increased. There is a transition from small accommodation businesses that only meet the need for overnight accommodation to accommodation businesses that are now trying to satisfy all kinds of desires of tourists. Changing tourism trends, differentiation in tourist demand and aggravating competition conditions require different businesses,

but they have to turn to offer goods and services that match the expectations of their customers. More than 85% of the bed capacity of the accommodation enterprises constitutes hotels. Hotels are divided into Tourism Operation Certificate and Municipality Certificate. The hotels with tourism operation certificate are classified according to the number of stars. This classification is 1, 2, 3, 4 and 5 stars. In Turkey, as of 2017, there are 3771 accommodation establishments and 935 000 bed capacity. In addition, the tourism sector accounts for 3 per cent of GDP and the export ratio of tourism revenues is 16.7 percent (TURSAB, 2018).

The tourism sector in Turkey, particularly after 1980, began to show a significant improvement and has become one of the sources of income that have contributed greatly to the country's economy. Indeed, Turkey has 38 million 620 thousand international tourists visited in 2017. Moreover, the foreign exchange income obtained from tourism in 2017 was realized as 26 billion 283 million dollars ([www.kultur.gov.tr](http://www.kultur.gov.tr)). The tourism sector is considered to be a driving force for the Turkey economy. Depending on these factors, it is stated that tourism provides employment to about 1.7 million people in Turkey. However, the World Tourism and Travel Council (WTTC) in the report mentions which was prepared for Turkey that this figure is a total of around 2.5 million (WTTC, 2013).

## 2.2 Green Hotel Concept

Tourists expect the hotel industry to pay attention to environmental concerns and operate in a sustainable way (Gokova, Yasar, Aslan, & Cetin, 2015; Gustin & Weaver, 1996). The accommodation sector is increasingly involved in corporate social responsibility. Many hotels are in several corporate social responsibility initiatives to serve the local community, to increase employee happiness and to protect the environment (Bohdanowicz & Zientara, 2009; S. Lee & Heo, 2009). According to Hacıoğlu & Girgin (2008), tourists are taking vacation decisions with the expectation of qualified tourism experiences that are revealed in accordance with the place where they will go. Therefore, it is necessary for consumers to understand their expectations for the protection of the environment and to meet these demands. Rising environmental awareness, increased tourist interest on green products, and voluntary more payments by tourists to green products; encourages hotel operators to obtain a green star certificate (Peattie & Crane, 2005). Today, in order to succeed in both national and international markets, it is necessary to invest in practices that do not destroy the environment and even protect the environment. Owners of "Green Stars" are trying not only to fulfill their social responsibilities but also to attract the attention of tourists with their environmental sensitivity works. Because tourists evaluate the price of a product they will buy, taking into account their impact on the environment (Ar & Tokol, 2010).

Green hotels, ecological hotels, eco-friendly hotels, green hotels, or green star hotels, which embrace sustainable tourism and nature-oriented hotel management activities, also help to save energy and help reduce the amount of waste left on to the environment. Environmental Management Systems evaluates the practices of environmental protection-related premises. Green star application has become a sustainable hotel management model that has been spread over the whole world, especially in Europe in recent years, and adopted as a new preference criterion by the customers. Hotel enterprises play an important role in ensuring environmental sustainability, as many activities that have significant impact on the environment, such as water, heating, cooling, lighting, laundry systems, etc., take place (Hsieh & Huang, 1998).

Within the scope of "Sustainable Tourism Facilities" project initiated by Turkish Ministry of Culture and Tourism and "Sustainable Tourism" is an "Environmental Label" application for environmentally friendly accommodation facilities. "Communiqué Pertaining to the Issuance of Accommodation Facility Responsible for Tourism Facilities Certificated Accommodation Facilities" (Communiqué No: 2008/3) has been published by the Official Gazette dated 22.09.2008 and numbered 27005. In the communiqué published in the Ministry, it is stated that "the consumption of energy, water and environmentally harmful substances and the reduction of the amount of waste, the increase of energy efficiency, the promotion of the use of renewable energy resources, the planning and realization of accommodation enterprises sensitive to environment from the investment stage, , awareness of environmental awareness, providing education and cooperation with related institutions and

organizations (Turkish Ministry of Culture and Tourism). The aim of the Ministry to carry out this practice is; the development of environmental awareness of the protection of the environment and the promotion of environmentally-friendly construction and management of tourist accommodation enterprises. Also, according to the Green Hotels Association (2012), green hotels can be defined as eco-friendly accommodation facilities that implement different green practices such as water and energy conservation, solid waste reduction and recycling and reuse of durable services.

### 2.3. Factors Affecting Tourists' Choice of Hotel

There are a lot of study in literature on the choice of hotel for tourists. In the hotel selection, MCDM techniques such as AHP (Analytic Hierarchy Process), Fuzzy TOPSIS, ELECTRE were used. Hotel managers need to be able to identify the factors that affect tourists' choices (Lockyer, 2005a; Mattila & O'Neill, 2003). The location of the hotel is an important factor affecting the decision of tourists to choose a hotel (Yang, Wong, & Wang, 2012). In fact, the factors that affect tourists' hotel choice are rather complicated (Lockyer, 2005b). The choice of location includes making a general distribution plan for the region, as well as traffic and transport conditions in the region, which are taken into account when selecting the location (Coltman, 1989). Whether the hotel is close to the city center or the tourist attractions, whether it is in a zone where transportation can be provided, and so on (Dogan & Gencan, 2013). Gray and Liguori (2003), pointed out a few issues in the study area: local economic environment, regional regulations, height limits of buildings, parking facilities, public facilities, traffic facilities and accessibility to regions, geographical factors, natural resources and size of the place. In addition, Pan (2002) categorized tourist hotel location selection factors: the suitability of the main station, traffic convenience and good visual perception, public facilities and other services, the implementation of specific regulations, and the flexible area. The basis of these discussions focuses on the overall facilities surrounding the hotel, the traffic conditions and future considerations for expandability. Knutson (1988) stated that business travelers consider five important factors when choosing a hotel: clean, comfortable, well-maintained rooms, convenient location, fast service, safe environment, friendly and courteous staff. Tourists have also taken into consideration 6 important factors when choosing a hotel through TripAdvisor: hotel location, cleanliness, quality of bed, comfort, equipment, service, money reserve. When a potential customer searches for a hotel through TripAdvisor, they pay attention to the comments of other customers (Zaman, Botti, & Thanh, 2016). Tourists want to get the most appropriate accommodation, food, entertainment, and other services they need during their travels with the highest quality service.

A number of studies have been conducted to examine the selection criteria that affect customers' hotel choice intentions (Lockyer, 2005b). It has been found that factors such as location, price, facility and cleanliness are influencing tourists' choice of hotels. Other criteria are location, size of guest rooms, staff, facilities and breakfast (Stringam, Gerdes Jr, & Vanleeuwen, 2010). In addition, Lockyer (2005b) found a relationship between price and location in his work. That is, if a person on a business trip wants to stay in a particular place, he/she will pay more for the accommodation, since the company will probably pay the accommodation fee. However, even if a customer does want to stay in a green star hotel, he may not choose that hotel if he does not afford it (Han et al., 2010b; Nicolau & Mas, 2006). In their work, Sparks and Browning (2011) emphasize that customers are the four main factors influencing hotel choice and trust perception. These; The purpose of interpretation is whether a consumer-rated numerical rating is presented along with the general value (positive or negative), frame and written text. As a result of the research; Consumers were affected by comments containing negative information, but positive comments were found to be reliable.

Lee et al. (2000) ve Hsieh & Huang (1998) , point out that the number of competitive stores in the region and the market share in commercial circles are important factors in choosing the location. The degree of proximity to competing regions is also an indicator of competitiveness. Ül en & Gülmez (2016) , as the main criterion in their study using the AHP method for preferring one of the hotels within the chain hotel group with five star standard operating in Antalya, the closeness to the airport, the quality of service, the recommendation rate, the price performance , hotel hall, area and price. The order of importance of these criteria is as follows; 1-price, 2-service quality, 3-recommendation rate, 4-price-



performance ratio, 5-hotel carnage, 6-area (area of establishment), 7-proximity to the airport. As a result of this work Rixos Tekiorova hotel was chosen as the most suitable hotel.

In one study, it was researched how the influences of the criteria of potential hotel guests influence the decision-making process (Zaman et al., 2016). We have used these sites because of the increasing importance of hotel communication through the website of reviews, that is to say the importance of electronic communication in the mouth. We have used AHP on the criteria of TripAdvisor, and in a study on 250 tourists in Paris, the location, the quality of the bed, comfort-comfort, equipment, service, 6 as cleaning. The criteria for the study were reached as a result of interviews with tourists. The priorities in the criteria have changed according to the duration of income and stay. Cleanliness is the most important consideration in all criteria. The first order was in the remaining three days, while in the remaining three days it was cleaned. 69% of 250 tourists did not stay for 3 nights, and the result shows that sleep quality, comfort and weight of equipment increase during the stay. Those earning more than \$ 25,000 a year (36% responding) are looking for better location, comfort and additional services. Tourists have categorized criteria 1-9 according to their importance. (Zaman et al., 2016).

Chou, Hsu, & Chen, (2008) found 21 criteria for hotel selection in their study of location choice for an international hotel in Taiwan. Many of these criteria may also be important in selecting hotels for tourists. These criteria consist of four perspectives, 8 factors and 21 criteria. Perspectives are geographical conditions, traffic conditions, hotel features and operation management. For example, hotel features include; hotel leisure facilities, diversity of restaurants, local cultural compatibility of the hotel's features. As a result of the research, hotel properties, operations management perspectives have become the first and second important perspective. Internal development was the most important factor among the factors.

Aksoy & Ozbuk, (2017) determined 3 factors and 10 special criteria in their study on the selection of the most advantageous hotels in Istanbul by location. Factors are accessibility, city development and tourist attraction. With PSI method, 15 alternative hotels have been identified and also ratings of hotel locations of these 15 hotel customers from booking.com have been compared. Parallelism was found among the values. It was determined that the proximity of tram and metro is important in the selection of hotel.

Yang, Mao, & Tang, (2018) emphasizes the proximity of a hotel to attractions, airports, universities and public transport, as well as its proximity to green areas, water areas and local businesses. In this study, the factors related to location were determined as the ease of access to the points of interest, the suitability of transportation and the condition of the environment. 220 Los Angeles hotel and 8185 customer comments have been set up to reach the best hotel that satisfies tourists.

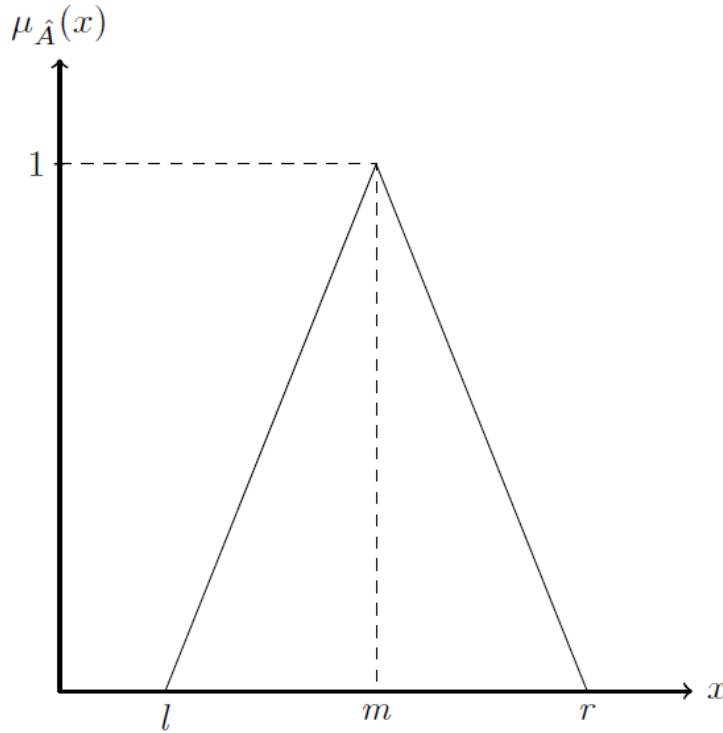
In Iran, the criteria that tourists place in hotel selection are the result of promenade and comfort, security and protection and network services being the most important factors. In this study, 308 people were surveyed (Sohrabi, Vanani, Tahmasebipur, & Fazli, 2012).

The category of the hotel (classification), the location (Yang et al., 2012), the facilities offered have a positive effect on the hotel room price and its rating. In another study, it was stated that the main factors influencing customers' decisions to choose a hotel were the suitability of their reputation, image and accessibility (Tsaur & Tzeng, 1996).

## 2.4. Triangular Fuzzy Numbers

A triangular fuzzy number  $\tilde{A}$ , can be represented by a triangle  $(l, m, r)$ . Then the membership function of the triangular fuzzy number  $\tilde{A}$ :

$$\mu_{\tilde{A}}(x) = \begin{cases} 0, & x < l, \\ \frac{x-l}{m-l}, & l \leq x \leq m, \\ \frac{r-x}{r-m}, & m \leq x \leq r, \\ 0, & r < x. \end{cases} \quad (1)$$



**Figure 1.** Membership function of triangular fuzzy number  $\tilde{A}$

Let  $\tilde{A} = (l_1, m_1, r_1)$  and  $\tilde{B} = (l_2, m_2, r_2)$  are two triangle fuzzy numbers and  $k$  a scalar then, mathematical operations in triangular fuzzy numbers are defined as follows (Erol, Sencer, & Sari, 2011; Kaufmann & Gupta, 1988; T.-C. Wang & Chang, 2007):

$$\begin{aligned}
 \tilde{A} \oplus \tilde{B} &= (l_1 + l_2, m_1 + m_2, r_1 + r_2) \\
 \tilde{A} \ominus \tilde{B} &= (l_1 - r_2, m_1 - m_2, r_1 - l_2) \\
 \tilde{A} \otimes \tilde{B} &= (l_1 \times l_2, m_1 \times m_2, r_1 \times r_2) \\
 \tilde{A} \oslash \tilde{B} &= (l_1/r_2, m_1/m_2, r_1/l_2) \\
 k\tilde{A} &= (kl_1, km_1, kr_1) \\
 (\tilde{A})^{-1} &= (1/r_1, 1/m_1, 1/l_1)
 \end{aligned}$$

The distance between two fuzzy numbers is (C.-T. Chen, 2000):

$$d(\tilde{A}, \tilde{B}) = \sqrt{\frac{1}{3} [(l_1 - l_2)^2 + (m_1 - m_2)^2 + (r_1 - r_2)^2]}$$

### 2.3.1. Fuzzy TOPSIS Method

Hwang and Yoon (1981) proposed TOPSIS (The Technique for Preference to Similarity to Ideal Solution), which investigates the nearest and farthest solution to respectively the ideal solution and the anti-ideal solutions. Chen (2000) proposed the fuzzy TOPSIS method. We can summarize the method as follows (T.-C. Wang & Chang, 2007):

### 2.3.2. Determination of Weight of Criteria

Since the weights of criteria in decision-making problems represent different meanings, they cannot all be assigned at the same level of importance (M.-F. Chen & Tzeng, 2004). A wide variety of weighting methods are proposed in the literature. For fuzzy numbers, determining the weights with linguistic variables is an effective method. For the linguistic expressions in this method "very low", "low",

"medium", "high" and "very high", the triangular fuzzy number assignments in Table 1 are made (M.-J. J. Wang & Chang, 1995).

**Table 1.** Linguistic scales for the importance weight of each criterion (C.-T. Chen, 2000; M.-J. J. Wang & Chang, 1995)

Linguistic variable	Corresponding triangular fuzzy number
Very low (VL)	(0,0.1,0.3)
Low (L)	(0.1,0.3,0.5)
Medium (M)	(0.3,0.5,0.7)
High (H)	(0.5,0.7,0.9)
Very high (VH)	(0.7,0.9,1.0)

Suppose that a decision group has  $k$  members; take  $\tilde{w}_j^k$  to present the fuzzy weight of  $j$ th criterion assessed by  $k$ th evaluator. To integrate the different opinions of evaluators, this study adopted the synthetic value notation to aggregate the subjective judgement for  $k$  evaluators, given by

$$\tilde{w}_j = \frac{1}{k} (\tilde{w}_j^1 + \tilde{w}_j^2 + \dots + \tilde{w}_j^k) \quad (2)$$

### 2.3.2.1 Construction of Fuzzy Decision Matrix

Given  $m$  alternatives,  $n$  criteria and  $k$  decision-makers, a typical fuzzy multi-criteria group decision-making problem can be expressed in matrix format as (T.-C. Wang & Chang, 2007):

$$\tilde{D} = \begin{bmatrix} \tilde{x}_{11} & \tilde{x}_{12} & \dots & \tilde{x}_{1n} \\ \tilde{x}_{21} & \tilde{x}_{22} & \dots & \tilde{x}_{2n} \\ \vdots & \vdots & \ddots & \vdots \\ \tilde{x}_{m1} & \tilde{x}_{m2} & \dots & \tilde{x}_{mn} \end{bmatrix} \quad (3)$$

where  $\tilde{x}_{ij}$  represents the rating of  $i$ th alternative with respect to  $j$ th criterion evaluated by  $k$  evaluators  $i = 1, 2, \dots, m; j = 1, 2, \dots, n$ . In this study preferred the method of average value to integrate the fuzzy performance score  $\tilde{x}_{ij}^k$  for  $k$  evaluators concerning the same evaluation criteria, that is

$$\tilde{x}_{ij} = \frac{1}{k} (\tilde{x}_{ij}^1, \tilde{x}_{ij}^2, \dots, \tilde{x}_{ij}^k) \quad (4)$$

Where  $\tilde{x}_{ij}^k = (l_{ij}^k, m_{ij}^k, r_{ij}^k)$  is the rating  $i$ th alternative with respect to  $j$ th criterion evaluated by  $k$  evaluators.

The linguistic variables used by the evaluators are given in Table 2.

**Table 2.** Linguistic scales for the rating of each candidate green hotel

Linguistic variable	Corresponding triangular fuzzy number
Very poor (VP)	(0,1,3)
Poor (P)	(1,3,5)
Fair (F)	(3,5,7)
Good (G)	(5,7,9)
Very good (VG)	(7,9,10)

### 2.3.2.2 Normalization of Fuzzy Decision Matrix

In various MCDM problems, the raw data are normalized to recover the anomalies resulting from different measurement units and scales. However, the linear scales used in this study are intended to maintain the conversion normalization function in the range of normalized triangular fuzzy numbers [0,1]. If  $\tilde{N}$  represents the normalized fuzzy decision matrix, then:

$$\tilde{N} = [\tilde{n}_{ij}]_{m \times n}, i = 1, 2, \dots, m; j = 1, 2, \dots, n. \quad (5)$$

where;

$$\tilde{n}_{ij} = \left( \frac{l_{ij}}{r_j^+}, \frac{m_{ij}}{r_j^+}, \frac{r_{ij}}{r_j^+} \right) \quad (6)$$

$$r_j^+ = \max_i r_{ij} \quad (7)$$

### 2.3.2.3 Construction of Weighted Normalized Fuzzy Decision Matrix

Given the different weight of each criterion, the weighted normalized decision matrix can be calculated by multiplying the significance weights of the evaluation criteria and the values in the normalized fuzzy decision matrix. The weighted normalized decision matrix  $\tilde{V}$  is constructed as follows:

$$\tilde{V} = [\tilde{v}_{ij}]_{m \times n}, i = 1, 2, \dots, m; j = 1, 2, \dots, n. \quad (8)$$

$$\tilde{v}_{ij} = \tilde{n}_{ij} \otimes \tilde{w}_j \quad (9)$$

where,  $\tilde{w}_j$  is weight of the  $j$ th.

### 2.3.2.3 Determination of Fuzzy Ideal and Fuzzy Anti-Ideal Solutions

Fuzzy ideal point  $A^+$  and fuzzy anti-ideal solutions can be defined as

$$A^+ = (\tilde{v}_1^+, \tilde{v}_2^+, \dots, \tilde{v}_n^+) \quad (10)$$

$$A^- = (\tilde{v}_1^-, \tilde{v}_2^-, \dots, \tilde{v}_n^-) \quad (11)$$

where,  $\tilde{v}_j^+ = (1, 1, 1)$ ;  $\tilde{v}_j^- = (0, 0, 0)$ ;  $j = 1, 2, \dots, n$ .

### 2.3.2.4 Calculation of the Distances of Alternatives to Fuzzy Ideal and Fuzzy Anti-Ideal Solutions

$$d_i^+ = \sum_{j=1}^n d(\tilde{v}_{ij}, \tilde{v}_j^+); i = 1, 2, \dots, m. \quad (12)$$

$$d_i^- = \sum_{j=1}^n d(\tilde{v}_{ij}, \tilde{v}_j^-); i = 1, 2, \dots, m. \quad (13)$$

### 2.3.2.5 Obtain the Closeness Coefficient and Rank the Order of Alternatives

The closeness coefficient of each alternative is calculated by the following equation:

$$CC_i = \frac{d_i^-}{d_i^+ + d_i^-}; i = 1, 2, \dots, m. \quad (14)$$

The alternatives are sorted according to the descending order of the calculated proximity coefficients.

## 3. Application

In this study, five-star green hotel choice was made by Fuzzy TOPSIS method. As application data, 35 five-star green hotels operating in Istanbul were selected. Ten criteria were found to be appropriate. The decision matrix of the problem is given in Table 3. Since the fuzzy decision matrix takes up a lot of space, it has not been taken here.

An integrated fuzzy importance weight matrix for evaluation criteria was generated using the method of average value described in Eq. (4), and is presented in Table 2. To understand the importance order of these performance criteria for the pilots, the center of area (COA) method (Zhao & Govind, 1991) was utilized to defuzzify the triangular fuzzy numbers into corresponding best nonfuzzy performance (BNP) values. The BNP values presented in Table 4 reveal that the three most important

performance criteria for assessing green hotel were TripAdvisor customer ratings (C8), Price (C6) and Distance time to Sultanahmet Square (C4).

The results obtained by the Fuzzy TOPSIS method are given in Table 5. As you can see from the table, RADISSON BLU HOTEL ISTANBUL ASIA achieved the best performance. ELİTE WORLD BUSINESS, HILTON İSTANBUL KOZYATAĞI CONFERENCE CENTER & SPA, DİVAN İSTANBUL ASİA OTEL and WYNDHAM GRAND ISTANBUL EUROPE have created the top five most successful hotels. When we look at the closeness coefficient values of the first five, it is seen that there are very close performances between 0.502-0.5119. ISTANBUL POLAT RENAISSANCE HOTEL has achieved the lowest performance. ESER HOTEL PREMIUM & SPA, CROWNE PLAZA İSTANBUL ASIA, MIRACLE İSTANBUL ASIA HOTEL and HOLIDAY İNTANBUL CİTY have formed the most unsuccessful five stars.

**Table 3.** The decision matrix for green hotel selection problem

Hotel	Distance Time (min)				Traffic		Customer Ratings			
	Subway	Airport	Coach Station	Sultanahmet Square	Intensity	Price (TripAdvisor)	Trivago	TripAdvisor	Hotels.com	Google
ATIK PAŞA FOUR SEASONS	2.70	25.00	13.00	0.45	2.00	1757.00	9.40	5.00	9.60	4.70
BİZ CEVAHİR OTEL	0.55	20.50	11.70	9.40	3.00	439.00	8.20	4.50	8.40	4.00
CONRAD OTELİ	3.10	23.80	11.20	6.50	2.00	748.00	8.50	4.50	9.00	4.50
CROWNE PLAZA İSTANBUL ASIA	13.30	4.60	34.30	43.00	1.00	420.00	8.60	4.50	8.80	4.40
DEDEMAN PARK BOSTANCI OTEL&CONVENTION CENTER-DEDEMAN PARK BOSTANCI	1.00	29.20	15.00	23.60	2.00	246.00	8.30	4.00	8.60	4.30
DİVAN İSTANBUL	0.70	21.30	9.80	5.90	3.00	567.00	9.00	4.50	9.00	4.40
DİVAN İSTANBUL ASIA OTEL	2.60	8.00	29.60	38.10	1.00	225.00	8.50	4.50	8.80	4.40
DOUBLETREE BY HILTON İSTANBUL MODA	0.20	25.00	4.50	16.20	2.00	620.00	8.80	4.50	9.00	4.40
ELİTE WORLD BUSINESS	7.20	3.00	20.70	20.50	1.00	229.00	8.60	4.50	8.60	4.30
ESER OTEL PREMIUM & SPA	4.70	24.50	38.70	41.60	2.00	284.00	7.80	4.00	7.80	4.10
GRAND HYATT İSTANBUL	0.60	21.30	9.70	5.80	3.00	748.00	8.70	4.50	9.00	4.50
HILTON İSTANBUL KOZYATAĞI CONFERENCE CENTER & SPA	2.80	27.80	7.50	16.00	2.00	274.00	8.50	4.50	8.60	4.40
HİLTON OTELİ	1.10	23.60	10.30	6.40	2.00	846.00	8.50	4.50	8.40	4.50
HOLIDAY INN İSTANBUL CİTY	0.90	12.70	10.70	8.90	4.00	231.00	7.60	4.00	6.80	3.80
İSTANBUL POLAT RENAISSANCE OTEL	6.30	5.00	14.80	15.60	4.00	463.00	8.00	4.00	8.20	4.50
LİMAK EURASIA LUXURY HOTEL	6.70	34.00	23.00	24.40	2.00	331.00	8.40	4.50	8.60	4.30
MIRACLE İSTANBUL ASIA HOTEL	14.00	4.40	33.80	42.30	1.00	262.00	8.10	3.50	8.40	4.00
MÖVENPICK HOTEL İSTANBUL	0.28	23.60	8.80	12.30	1.00	514.00	8.70	4.50	8.80	4.40
PARK INN BY RADISSON İSTANBUL ATATÜRK AIRPORT OTEL	6.40	5.70	14.70	22.60	2.00	353.00	8.10	4.50	8.00	4.10
RADİSON BLU HOTEL İSTANBUL ASIA	3.00	25.00	11.50	21.60	1.00	262.00	8.50	4.50	9.00	4.40
RADISSON BLU CONFERENCE & AIRPORT HOTEL İSTANBUL	5.50	4.80	19.00	18.80	1.00	231.00	7.50	3.50	7.80	3.90
RADISSON BLU HOTEL İSTANBUL PERA	0.40	19.20	9.40	4.00	2.00	553.00	8.50	4.50	8.40	4.20
RADISSON BLU HOTEL İSTANBUL-ŞİŞLİ	0.60	20.00	7.90	8.20	2.00	546.00	8.50	4.50	8.60	4.30
RADISSON SAS BOSPHORUS	0.40	25.00	12.10	7.40	2.00	681.00	7.90	4.00	8.20	4.20
RAMADA PLAZA İSTANBUL	4.40	21.80	7.60	7.50	3.00	394.00	8.10	4.00	8.20	4.20
RAMADA PLAZA İSTANBUL TEKSTİL KENT	3.90	18.40	5.90	14.90	2.00	256.00	8.00	4.00	8.20	4.20
RENAISSANCE İSTANBUL POLAT BOSPHORUS HOTEL	2.30	23.20	11.60	8.70	2.00	567.00	8.30	4.50	8.60	4.40
SILENCE İSTANBUL HOTEL CONVENTION CENTER	3.40	23.20	13.00	21.60	1.00	316.00	8.30	4.00	9.00	4.20
SWİSSEOTEL THE BOSPHORUS	1.80	23.10	10.90	7.00	2.00	833.00	8.80	4.50	9.20	4.60
THE MARMARA TAKSİM	0.06	20.70	10.40	4.90	3.00	633.00	8.10	4.50	8.60	4.30
THE RITZ CARLTON	1.10	21.00	9.50	5.60	1.00	2191.00	9.00	4.50	9.20	4.60
THE ST. REGIS İSTANBUL	1.00	23.60	10.10	6.20	2.00	1382.00	9.10	5.00	9.80	4.60
WYNDHAM GRAND İSTANBUL EUROPE	6.00	5.90	15.10	22.00	2.00	287.00	8.80	4.50	9.20	4.40
WYNDHAM GRAND İSTANBUL KALAMIŞ MARİNA HOTEL	2.80	34.00	5.70	18.40	2.00	465.00	8.80	4.50	9.20	4.60
WYNDHAM GRAND İSTANBUL LEVENT	0.70	22.60	9.90	11.30	2.00	741.00	8.90	4.50	9.40	4.50

Traffic Intensity 1: Open, 2: Flow, 3: Intensive, 4: Very Intensive

**Table 4.** The fuzzy important weight, BNP and rank of each criterion

Criteria	Fuzzy importance weight	BNP value	Rank
C1	0.4333;0.6333;0.8333	0.6333	7
C2	0.4333;0.6333;0.8	0.6222	8
C3	0.3;0.5;0.7	0.5000	9
C4	0.5;0.7;0.8667	0.6889	3
C5	0.4333;0.6333;0.8333	0.6333	6
C6	0.5;0.7;0.8667	0.6889	2
C7	0.4333;0.6333;0.8333	0.6333	5
C8	0.5667;0.7667;0.9333	0.7556	1
C9	0.4333;0.6333;0.8333	0.6333	4
C10	0.2333;0.4333;0.6333	0.4333	10

**Table 5.** The Fuzzy TOPSIS results

HOTEL	A+	A-	CC	RATI NG
Atik Paşa Four Seasons	5.506 3	5.338 3	0.492	12
Biz Cevahir Otel	5.677 9	5.154 8	0.475	26
Conrad Otel	5.534 3	5.308 6	0.489	17
Crowne Plaza İstanbul Asia	5.83 4	4.966	0.46	33
Dedeman Park Bostancı Otel&Convention Center	5.460 3	5.404 4	0.497	8
Divan İstanbul	5.758 9	5.055 5	0.467	28
Divan İstanbul Asia Otel	5.394 3	5.464 2	0.503	4
Doubletree By Hilton İstanbul Moda	5.600 2	5.241 5	0.483	22
<b>Elite World Business</b>	<b>5.30</b> <b>85</b>	<b>5.56</b> <b>18</b>	<b>0.51</b>	<b>2</b>
Eser Otel Premium & Spa	5.951 3	4.865 8	0.449	34
Grand Hyatt İstanbul	5.758 9	5.055 5	0.467	29
<b>Hilton İstanbul Kozyatağı Conference Center &amp; Spa</b>	<b>5.34</b> <b>91</b>	<b>5.52</b> <b>79</b>	<b>0.50</b>	<b>3</b>
Hilton Otel	5.580 7	5.262 3	0.485	21
Holiday Inn İstanbul City	5.819 5	5.008 6	0.462	31
İstanbul Polat Renaissance Otel	5.975 7	4.835 3	0.447	35

Limak Eurasia Luxury Hotel	9	5.679	7	5.164	2	0.476	25
Miracle İstanbul Asia Hotel	4	5.820	3	4.984	3	0.461	32
Mövenpick Hotel İstanbul	3	5.509	7	5.331	8	0.491	14
Park Inn By Radisson İstanbul Atatürk Airport	2	5.608	6	5.233	7	0.482	23
<b>Radisson Blu Hotel İstanbul Asia</b>	<b>04</b>	<b>5.30</b>	<b>99</b>	<b>5.55</b>	<b>19</b>	<b>0.51</b>	<b>1</b>
Radisson Blu Conference & Airport Hotel İstanbul	9	5.578	6	5.285	5	0.486	19
Radisson Blu Hotel İstanbul Pera	6	5.503	2	5.338	4	0.492	10
Radisson Blu Hotel İstanbul-Şişli	6	5.503	2	5.338	4	0.492	11
Radisson Sas Bosphorus	2	5.703		5.133	7	0.473	27
Ramada Plaza İstanbul	9	5.665	7	5.170	2	0.477	24
Ramada Plaza İstanbul Tekstilkent	6	5.452	6	5.416	3	0.498	6
Renaissance İstanbul Polat Bosphorus Hotel		5.534	3	5.308	6	0.489	18
Silence İstanbul Hotel Convention Center	9	5.450	2	5.403	8	0.497	7
Swissotel The Bosphorus	6	5.530	8	5.313		0.49	16
The Marmara Taksim	9	5.758	6	5.055	5	0.467	30
The Ritz Carlton		5.48		5.361	5	0.494	9
The St. Regis İstanbul		5.506	3	5.338	3	0.492	13
Wyndham Grand İstanbul Europe	6	5.408	3	5.452		0.502	5
Wyndham Grand İstanbul Kalamış Marina	2	5.531	8	5.318	2	0.490	15
Wyndham Grand İstanbul Levent	3	5.570	9	5.271	2	0.486	20

#### 4. Conclusions

Within the scope of the study, Radisson Blu Hotel Istanbul Asia was chosen as the best hotel by obtaining the highest closeness coefficient. Elite World Business and Hilton Istanbul Kozyatağı Conference Center & Spa are the second and third places with close scores. Criteria are ranked according to importance, TripAdvisor customer reviews, price and distance to Sultanahmet. The Google customer reviews criterion has been identified as the lowest importance criterion. However, tourists are evaluating the impact of a product that they will buy when making a hotel choice, taking into account their price. Tourists want to get the most appropriate accommodation, food, entertainment, and other services they need during their travels with the highest quality service.

Zaman et al. (2016) found that potential tourists in the study they conducted paid attention to TripAdvisor customer reviews when they preferred hotels. It can be said that Zaman, Botti and Thanh

Zaman et al. (2016) and this study have reached similar results. In addition, Sparks and Browning (2011) found that customers were influenced by comments containing negative information when selecting hotels, but positive comments were also found to be reliable. Again, it can be said that there are similarities in the results between Sparks and Browning (2011) and this study. Lockyer (2005b) found a relationship between price and location while conducting hotel selection. In this study, it can be said that the price and the distance of the hotel to Sultan Ahmet square are important criteria, so the results of the two works overlap each other.

Shieh, Hu and Gao (2014), in their study of tourists, chose hotels more often, wider, older, and closer to the airport.

As in other studies carried out in Social Sciences, this study has some limitations. For technical reasons, hotel security, noise map, crime map are not included in the study. These criteria can be included in future work.

## 5. References

- Aksoy, S., & Ozbuk, M. Y. (2017). Multiple criteria decision making in hotel location: Does it relate to postpurchase consumer evaluations? *Tourism Management Perspectives*, 22, 73-81.
- Ar, A. A., & Tokol, T. (2010). Tekstil Sektöründeki İşletmelerin Yeşil Pazarlamadan Kaynaklı Kazanımları. [Businesses in the Textile Sector Outcomes from the Green Marketing Source] *Elektronik Sosyal Bilimler Dergisi [Electronic Journal of Social Sciences]*, 9(31), 148-168.
- Bohdanowicz, P., & Zientara, P. (2009). Hotel companies' contribution to improving the quality of life of local communities and the well-being of their employees. *Tourism and Hospitality Research*, 9(2), 147-158.
- Chan Wilco W. (2009). Environmental measures for hotels' environmental management systems: ISO 14001. *International Journal of Contemporary Hospitality Management*, 21(5), 542-560. doi:10.1108/09596110910967791
- Chen, C.-T. (2000). Extensions of the TOPSIS for group decision-making under fuzzy environment. *Fuzzy Sets and Systems*, 114(1), 1-9.
- Chen, M.-F., & Tzeng, G.-H. (2004). Combining grey relation and TOPSIS concepts for selecting an expatriate host country. *Mathematical and Computer Modelling*, 40(13), 1473-1490.
- Chou, T.-Y., Hsu, C.-L., & Chen, M.-C. (2008). A fuzzy multi-criteria decision model for international tourist hotels location selection. *International Journal of Hospitality Management*, 27(2), 293-301.
- Claver-Cortés, E., Molina-Azorín, J. F., Pereira-Moliner, J., & López-Gamero, M. D. Environmental strategies and their impact on hotel performance. doi:10.2167/jost640.0
- Coltman, M. M. (1989). *Tourism marketing*: Van Nostrand Reinhold.
- Dogan, N., & Gencan, S. (2013). Seyahat Acentesi Yöneticilerinin Bakış Açısıyla En Uygun Otel Seçimi: Bir Analitik Hiyerarsi Prosesi (AHP) Uygulaması. [The Best Hotel Choice for Travel Agent Managers' View: An Analytic Hierarchy Process (AHP) Application] *Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi [Erciyes University Journal of Economics and Administrative Sciences]*, 41(1), 69-88.
- Erol, I., Sencer, S., & Sari, R. (2011). A new fuzzy multi-criteria framework for measuring sustainability performance of a supply chain. *Ecological Economics*, 70(6), 1088-1100. doi:<http://dx.doi.org/10.1016/j.ecolecon.2011.01.001>
- Gokova, O., Yasar, A. G., Aslan, A., & Cetin, G. (2015). The Relationship Between Organizational Culture And The Environmental Management Perception Of Employees: A Research On Green Star Hotels. *Research Journal of Business and Management*, 2(2), 169-184.
- Gray, W. S., & Liguori, S. C. (2003). *Hotel and motel management and operations*: Prentice Hall.
- Green Hotel Association. (2012, 29/05/2018). Why Should Hotels Be Green?.. Retrieved from <http://greenhotels.com/index.php>
- Gustin, M. E., & Weaver, P. A. (1996). Are hotels prepared for the environmental consumer? *Hospitality Research Journal*, 20(2), 1-14.



Hacioğlu, N., & Girgin, G. K. (2008). Sürdürülebilir Turizm Kapsamında Yeşil Pazarlamanın Yeri ve Önemi[The Place and Priority of Green Marketing in the Context of Sustainable Tourism]. *Adana: Çukurova Üniversitesi İktisadi ve İdari Bilimler Fakültesi, 13. Ulusal Pazarlama Kongresi, Sürdürülebilirlik ve Pazarlama [Çukurova University Faculty of Economics and Administrative Sciences, 13th National Marketing Congress, Sustainability and Marketing]*.

Han, H., Hsu, L.-T., & Sheu, C. (2010a). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334. doi:<https://doi.org/10.1016/j.tourman.2009.03.013>

Han, H., Hsu, L.-T. J., & Sheu, C. (2010b). Application of the theory of planned behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325-334.

Hsieh, J., & Huang, J. (1998). The preference of housing needs in Taichung City. *Journal of the Land Bank of Taiwan*, 35(3), 173-195.

Hwang, C.-L., & Yoon, K. (1981). *Lecture Notes in Economics and Mathematical Systems: Multiple Attribute Decision Making: Methods and Application*: Springer Verlag.

Kamal, M., & Vinnie, J. (2007). Exploring consumer attitude and behaviour towards green practices in the lodging industry in India. *International Journal of Contemporary Hospitality Management*, 19(5), 364-377. doi:10.1108/09596110710757534

Kaufmann, A., & Gupta, M. M. (1988). *Fuzzy mathematical models in engineering and management science*: Elsevier Science Inc.

Knutson, B. J. (1988). Frequent travelers: Making them happy and bringing them back. *Cornell Hotel and Restaurant Administration Quarterly*, 29(1), 82-87.

Kotler, P., Bowen, J. T., & Makens, J. C. (2010). *Marketing for Hospitality and Tourism*: Prentice Hall.

Lee, C., Lee, W.-R., & Hsu, H. (2000). An empirical study on the relationship between strategic groups and performance in Taiwan's international tourist hotel industry. *Journal of Business Administration*, 48, 89-120.

Lee, S., & Heo, C. Y. (2009). Corporate social responsibility and customer satisfaction among US publicly traded hotels and restaurants. *International Journal of Hospitality Management*, 28(4), 635-637.

Lockyer, T. (2005a). The perceived importance of price as one hotel selection dimension. *Tourism Management*, 26(4), 529-537.

Lockyer, T. (2005b). Understanding the dynamics of the hotel accommodation purchase decision. *International Journal of Contemporary Hospitality Management*, 17(6), 481-492.

Mattila, A. S., & O'Neill, J. W. (2003). Relationships between hotel room pricing, occupancy, and guest satisfaction: A longitudinal case of a midscale hotel in the United States. *Journal of Hospitality & Tourism Research*, 27(3), 328-341.

Middleton, V. T. C., & Hawkins, R. . (2000). Sustainable Tourism: A Marketing Perspective. *International Journal of Contemporary Hospitality Management*, 12(3), 218-220. doi:doi:10.1108/ijchm.2000.12.3.218.1

Nicolau, J. L., & Mas, F. J. (2006). The influence of distance and prices on the choice of tourist destinations: The moderating role of motivations. *Tourism Management*, 27(5), 982-996.

Pan, C. (2002). Market concentration ratio analysis of the international tourist hotel industry in Taipei area. *Tourism Management Research*, 2(2), 57-66.

Peattie, K., & Crane, A. (2005). Green marketing: legend, myth, farce or prophesy? *Qualitative Market Research: An International Journal*, 8(4), 357-370.

Shieh, H.-S., Hu, J.-L., & Gao, L.-Y. (2014). Tourist preferences and cost efficiency of international tourist hotels in Taiwan. *International Journal of Marketing Studies*, 6(3), 35.

Sohrabi, B., Vanani, I. R., Tahmasebipur, K., & Fazli, S. (2012). An exploratory analysis of hotel selection faktors: A comprehensive survey of Tehran hotels. *International Journal of Hospitality Management*, 96-106.

Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management*, 32(6), 1310-1323.

Stringam, B. B., Gerdes Jr, J., & Vanleeuwen, D. M. (2010). Assessing the importance and relationships of ratings on user-generated traveler reviews. *Journal of Quality Assurance in Hospitality & Tourism*, 11(2), 73-92.

Tsaur, S.-H., & Tzeng, G.-H. (1996). Multiattribute decision making analysis for customer preference of tourist hotell. *Journal of Travel & Tourism Marketing*, 4(4), 55-69.

Turkish Ministry of Culture and Tourism. (17/05/2018). Retrieved from <http://yigm.kulturturizm.gov.tr/TR,11596/cevreye-duyarlilik-kampanyasi-yesilyildiz.html>

Ülen, Ö. G. M., & Gülmez, M. (2016). Konaklama İşletmelerinin Tercihinde Bir Araç Olarak AHP Yöntemi: Zincir Oteller Üzerine Bir Uygulama [AHP Method as a Vehicle in the Preference of Accommodation Enterprises: An Application on Chain Owners]. *Verimlilik Dergisi [Journal of Productivity]*, 1, 85-102.

Wang, M.-J. J., & Chang, T.-C. (1995). Tool steel materials selection under fuzzy environment. *Fuzzy Sets and Systems*, 72(3), 263-270.

Wang, T.-C., & Chang, T.-H. (2007). Application of TOPSIS in evaluating initial training aircraft under a fuzzy environment. *Expert Systems with Applications*, 33(4), 870-880.

Yang, Y., Mao, Z., & Tang, J. (2018). Understanding guest satisfaction with urban hotel location. *Journal of Travel Research*, 57(2), 243-259.

Yang, Y., Wong, K. K. F., & Wang, T. (2012). How do hotels choose their location? Evidence from hotels in Beijing. *International Journal of Hospitality Management*, 31, 675-685.

Yu-Chin, H. (2012). Hotel companies' environmental policies and practices: a content analysis of their web pages. *International Journal of contemporary hospitality management*, 24(1), 97-121. doi:doi:10.1108/095961112

Zaman, M., Botti, L., & Thanh, T. V. (2016). Weight of criteria in hotel selection: An empirical illustration based on TripAdvisor criteria. *European journal of tourism research*, 13, 132.

Zhao, R., & Govind, R. (1991). Algebraic characteristics of extended fuzzy numbers. *Information Sciences*, 54(1), 103-130. doi:[https://doi.org/10.1016/0020-0255\(91\)90047-X](https://doi.org/10.1016/0020-0255(91)90047-X)



# Advance Ruling Practice in Turkish Tax Law and Its Outcomes

Hakan Bay

## 1. Introduction

With each passing day, taxpayers are facing more unusual situations and outcomes against the complex tax legislation. Taxpayers and tax responsible parties are entitled to request for a written opinion from the authorized bodies with regards to unclear or hesitated taxation matters. This opinion is recognized as advance ruling (special notice) in tax law. With advance ruling, the taxpayers are provided with views with regards to the hesitated matters, thus directing the practical process.

The taxpayers carry out the taxation transactions more comfortably and see the future more clearly thanks to the advance ruling practice. Reflecting the opinions of Ministry of Finance and Department of Treasury, the taxpayers are enlightened, thus ensuring the taxation system to run in a manner not leading to uncertainties. Despite being a problem-solving exercise, the advance ruling is not a regulatory transaction. Advance ruling, as the secondary resource of tax law, is based on the interpretation of tax laws for the taxation transactions to be carried out more properly. Therefore, the usage of these resources is of importance to both the taxpayers and the administration.

In this study, a legal regulation will be provided with regards to advance ruling. Then, we will try to explain the importance of advance ruling, the process of receiving advance ruling, the respective procedures, the points to take into consideration while claiming for advance ruling, where and how to make the request, the limits of the request, including its position and importance in tax audit process. Additionally, the results that are brought into by advance ruling for the taxpayer and the administration, including the points to take into consideration with regards to this practice and recission of advance ruling will be analyzed.

## 2. Definition of the term “Advance Ruling (Special notice)”

According to the third article of Tax Procedural Law, tax laws enure by the letter and spirit. Where the letter is open, tax law provisions are enforced considering their purposes, their places within the law structure, including their correlation with other articles. As in the enforcement of all other laws, there might be uncertainties in terms of the correct enforcement method in the tax laws, as well. In today's world, where the economical relations and tools change swiftly as the days pass, it is of great importance to clarify the uncertainties. This matter is not only valid for the tax payers in terms of taxes, but also for those working in the administration (Şenyüz, Vergi Ceza Hukuku (Vergi Kabahatleri ve Suçları), 2015, p. 292). Advance rulings, introduced by the Tax Administrations, play a critical role in clarifying the uncertainties.

413<sup>rd</sup> article of the law grants a right to the tax payers to demand a written explanation from the tax administration. According to this, the tax payers may demand an explanation in written form on matters that are not clear or lead uncertainty in terms of tax status and tax enforcement from Revenue Administration or the respective authorities. Revenue Administration may respond the explanation with a advance ruling, as well as publishing a circular note for directing and clarifying for each and every tax payer in the same status. The advance ruling is a written opinion submitted by the respective authorities upon being demanded by the tax payers and bearers concerning uncertainties and non-clear matters in written form (Şenyüz, Yüce, & Gerçek, Vergi Hukuku (Genel Hükümler), 2015, p. 39). It is the opinion of Revenue Administration for directing and clarifying the matter for all the tax payers and bearers in the same status on non-clear and uncertain matters in terms of tax status and practices (Gençer, 2010, p. 1).

### 3. Subjects and Limits of Advance ruling Request

Advance rulings are the written answers given by the Ministry of Finance for the questions of tax payers in written form concerning their uncertainties. Since the advance rulings reflect the interpretation and approach of the tax administration, it bears the characteristics of a reference for similar cases. Advance rulings are not recognized as executive (something that must be executed) and administrative transactions, thus not being subjected to action for annulment. Additionally, personal transactions that are against the law, based on this resource, will always be open for judicial remedy (Oktar, 2011, p. 39). However, not all applications by the tax payer or bearer are recognized within the scope of advance ruling. The following are the requests that are not within the scope of advance rulings:

- Information and explanation requests on the tax status of others,
- Explanation requests for cases submitted to the court,
- Explanation requests on the transactions that are subjected to examination by the tax payers or bearers, who are in tax audit at that time,
- Information and explanation requests that are not based on a concrete event, but rather on theoretical matters,
- Requests concerning the matters, for which the Ministry of Finance is authorized to designate by law like force majeure declaration, cancellation of tax, exercising the Powers on regulating a document,
- Applications by tax payers and bearers after the tax practices and respective transactions are completed,
- According to 122<sup>nd</sup> article of Tax Procedural Law, correction requests on tax errors, including applications for complaints which will be investigated by the Ministry of Finance according to the 124<sup>th</sup> article of the same law,
- Requests made via in written, verbal form or via internet according to Law no: 3071 on exercising the right to petition and Right to information act no: 4982 (GİB, 2010).

### 4. Those who can request advance ruling and the respective authority

Advance ruling requests are made by the tax payers, tax bearers, their beneficiaries, legal representatives with the letter of authority and their attorneys. Professional establishments like chambers and associations cannot request advance ruling for declaring to their members, excluding those concerning personal obligations. However, these establishments may request opinions of Revenue Administration on taxation, which do not have the characteristics of advance ruling (Şenyüz, Yüce, & Gerçek, Vergi Hukuku (Genel Hükümler), 2015, p. 39). Advance ruling is requested from provincial treasuries in provinces where Department of Taxation is not available, as well as from the Department of Taxation of their obligations on income or corporate tax. For other tax payer or bearer advance ruling requests, tax payers and bearers may apply to the Department of Taxation of their residential addresses or legal headquarters, and provincial treasuries in provinces, where there is no Department of Taxation; and Department of Taxation – Ankara, İstanbul and İzmir, in case not having a residential address or legal headquarters. Advance ruling requests are made by means of using the Advance ruling Request form, a sample of which can be found on the website of Revenue Administration. Advance rulings without this form will not be accepted. Department of Taxation, and Provincial Treasury where this directorate is not available, evaluate the advance ruling requests first within the scope of advance ruling request, those who can request advance ruling, and the authority from which the advance ruling can be requested. In case of any contradiction on these matters, it is notified to the applicant in written form with the respective reasons. Where it is confirmed that there is no barrier that prevent the request of advance ruling, the respective authority regulates the advance ruling for the matters, on which the advance ruling is requested for the first time, and sends it to Revenue Administration. Advance ruling is assigned after being approved by the commission to be constituted within Revenue Administration. After the advance ruling is submitted, a copy of this advance ruling is placed into the tax payer's file in the tax Office. Additionally, in case of any transactions to be carried out by the rural authorities within the framework of the explanations in the

advance ruling, these transactions have the characteristics of orders and instructions issued to the rural units by the administration, and these transactions are monitored.

Revenue Administration may respond the explanation with a advance ruling, as well as publishing a circular note for directing and clarifying for each and every tax payer in the same status Advance rulings and circular notes are prepared by a commission comprising of at least three department heads, chaired by the Revenue Administration President or his/her deputy to act for and on behalf of him/her. The commission takes decision by majority of votes and approves the advance ruling drafts as is or with amendments. In case of an explanation requests that has exactly the same nature in terms of subject, scope and respective legislation with the circular notes or advance rulings regulated in this commission, provided they conform with the circular notes or advance rulings regulated by the commission, advance rulings may be submitted without obtaining permission from Revenue Administration by Departments of Taxation and provincial treasuries. However, where it is the first time concerning the matter, for which the advance ruling is requested, and there is no advance ruling submitted before, Departments of Taxation or revenue officer, as rural units, have no authority to submit advance ruling on the respective matter. Considering the provisions related to the privacy of circular note and tax privacy, it is published on the website of Revenue Administration, while ensuring all the authorized departments to see these advance ruling after being logged into the database of "Precedent Advance ruling Pool" for similar advance ruling requests in the future.

### **5. The place and importance of advance rulings in Tax Law**

Answers are given to the requesting party personally in written form by the respective authorities upon the advance ruling request. Tax administration displays a conservative and uncommunicative while answering the questions of tax payers requesting advance ruling, thus remaining loyal to the letter of law by applying a more idiomatic and systematic interpretation way (Saygılıoğlu, 1987, p. 139). Within this framework, the tax administration tries to come up with a solution to the problems that may be confronted in tax practices by using their ability to interpret with both advance rulings and circular notes. The submitted advance rulings will be valid during the taxation period, when requested, In the event that the actual nature of the event is different from those stated by the taxpayer in its request for advance ruling, and that information in the request form and appendix of the advance ruling are not true, the submitted advance ruling will be deemed void. Advance ruling is similar to circular notes for providing an answer upon receiving a question, but it is different from the circular note since it provides an answer specific to the respective person. While circular notes are for anonymous answers of questions and directed to all the tax payers, advance ruling comprises of a specific answer and specific to a person. With these aspects, circular notes are in the form a "general advance ruling" (Gerçek, 2010, p. 35). Advance rulings must be notified to the tax bearer within the shortest time possible. A copy is submitted to the tax Office for information.

Resources of tax law comprises of binding and mandatory primary sources, as well as directive secondary sources. Advance ruling is one of the secondary sources of tax law. Advance rulings, as the explanations in maintaining taxational transactions, are not characterized as a final and mandatory transaction. Therefore, they are not binding like the secondary sources (Arıkan, 1998, p. 130). Advance rulings are the secondary resources in tax law due to not being general and publicly disclosed (Bayraklı, 2006, p. 23). An advance ruling grants a right for the tax payer, who is provided with a written answer, which is not binding on other tax payers and judicial bodies. Therefore, it does not have any characteristic apart from learning the opinion of administration in terms of tax practices, as well as setting forth its opinion. Due to not having a nature of a final and mandatory transaction, it is not subjected to action for annulment. In case of a transaction according to the advance ruling submitted to the tax payer, no penalty is imposed on the taxpayer, nor applying default interest, even if it is deemed to be subjected to penalty. In that, it is accepted that the respective authorities provided a misdirecting explanation for taxpayers (Şenyüz, Yüce, & Gerçek, Vergi Hukuku (Genel Hükümler), 2015, p. 40). However, there is an issue, which needs to be approached diligently on this matter. The period of time, granted to the taxpayers to carry out their taxational liabilities concerning the transactions for acting in line with the advance ruling, should not be expired. Misapprehension

prevents the formation of crime due to eliminating the faultiness, as one of the factors. Since faultiness is one of the moral elements, there would be no moral element if there is no faultiness. It is not possible for an action without moral element to be recognized as crime (Bayraklı, 2006, pp. 236-237). Where the taxpayer is mistaken (or rather, “mislead”), its will on doing something wrong is completely eliminated. Being mistaken constitutes an obstacle only for tax penalty and default interest (Şenyüz, Yüce, & Gerçek, Vergi Hukuku (Genel Hükümler), 2015, p. 243). However, this is not an obstacle for imposing and receiving the original tax. The following are deemed required where being mistaken is valid as one of the reasons revoking the penalty;

- The respective authority to give wrong explanation in written form to the taxpayer, or
  - the opinions and thoughts of the authorities on a the implementation method of a provision must be changed, or the judicial opinion is changed,
- (Özyer, 2001, p. 661).

**Table 1. Pros/Cons of Advance ruling System**

Pros	Cons
<ul style="list-style-type: none"> <li>✓ It ensures a more clear explanation for regulation that are complex are not easy to understand (Tosuner &amp; Arıkan, 2018, p. 28), thus providing a correct and clear answer to the taxpayer in a short period of time,</li> <li>✓ Applications and answers have a certain standard structure,</li> <li>✓ Unity is ensured in practice, thus leading a fair approach to each and every taxpayer,</li> <li>✓ The number of authority to be contacted to is reduced to one and one only,</li> <li>✓ Transparency is ensured with publication via website,</li> <li>✓ Legislation becomes more clear and comprehensible,</li> <li>✓ Compliance cost of the taxpayer is reduced,</li> <li>✓ Workload of the administration is lightened in the long term,</li> <li>✓ The resources are used effectively by minimizing bureaucracy and paperwork,</li> <li>✓ With reference to the received advance ruling requests, number of advance ruling applications are minimized by a general regulatory transaction,</li> <li>✓ Contribution is made in constituting corporate memory (Karyağdı, 2013, p. 26),</li> <li>✓ No penalty is imposed, nor receiving default interest, even if the taxpayers actions require a penalty, who also act in line with the advance ruling,</li> <li>✓ Specialties are developed in tax administration. The administration may make use of this expertise in the future practices and other management subjects.</li> </ul>	<p><b><u>From the perspective of the taxpayer</u></b></p> <p>Since the advance rulings are submitted by a commission operating within limited periods at the center, it might not be possible for them to respond to the advance ruling requests of the taxpayers within short periods of time. Therefore, advance ruling requests that are not answered in due time, may prevent the taxpayers to fulfill their duties right on time and as a whole.</p> <p><b><u>From the perspective of the administration</u></b></p> <p>Due to not requiring any fee for advance ruling requests in our country, the taxpayers contact to Administration even for the minor problems. Even sometimes, individuals that provide public accountant and consultancy services against remuneration may frequently request advance rulings for avoiding their responsibilities (Uyanık, 2001, p. 72). Therefore, this may increase the workload of the administration. It decreases the investigative and interpretation skills of those in this profession. This prevents the development of tax law, professions, as well as the judicial opinion formation in time.</p>

**Reference:** Regulated by me after being compiled from scientific discipline.

## 6. Conclusion

Revenue Administration to publish a advance ruling for preventing misinterpretation of tax laws by the taxpayers, contributed to the process of implementing the tax laws more efficiently. Constituting the technological infrastructure in tax administration, as well as being brought into service, facilitates the lives of taxpayers in many aspects. Taxpayers gain time for their personal operations for fulfilling taxational transactions within a shorter period of time. Additionally, constituting the Advance ruling Automation System has led the taxpayers to remove the uncertainties sometimes simply with a click of a mouse. Correspondence is drawn within the scope of providing solutions to the problems by providing parallel advance rulings to the same subjects that are uncertain among the taxpayers. This matter ensures the taxation transactions to get closer to the fairness and equality principles in taxation. Considering the uncertain regulations being clarified, it is obvious that the advance ruling practice will have a direct effect on the efficiency of the taxation process. The system will minimize the advance ruling requests, despite not preventing the questions to be directed. Additionally, unnecessary applications are to be prevented erewhile with legal regulations on requiring a fee on a fixed amount for requesting advance rulings. In this way, the taxpayers will recognize this service with a cost, while providing an opportunity to increase the public revenue. This regulation will also prevent the officers to lose their skills by not choosing the easy way.

## 7. References

- Arıkan, Z. (1998). Vergi Hukukunun Kaynaklarından Mukteza ve Sonuçları. *Dokuz Eylül Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 13(II), 127-133.
- Bayraklı, H. H. (2006). *Vergi Ceza Hukuku* (Rewritten, 3<sup>rd</sup> edition). Afyonkarahisar: Külçüoğlu Kültür Merkezi Yayınları.
- Gençer, Ç. A. (2010, Ekim). *Son Düzenlemeler Işığında Özelge ve Mali Sirküler Uygulaması ve Uygulamada Dikkat Edilmesi Gereken Hususlar*. Retrieved from <http://www.lebibyalkin.com.tr/mevzuat/diger/makale/mali-sirkuler.html> 10.08.2018.
- Gerçek, A. (2010). Vergi Hukuku Alanındaki Takdir Yetkisinin Kullanılmasında İdarenin ve Memurun Sorumluluğu. *Uludağ Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, XXIX(2), 23-50.
- GİB. (2010, Ağustos 28). *Mükelleflerin İzahat Taleplerinin Cevaplandırılmasına Dair Yönetmelik*. Retrieved from <http://www.gib.gov.tr/gibmevzuat>: 11.08.2018.
- Karyağdı, N. (2013, Temmuz). Eski Özelgeler Çöpe mi? *Vergi Dünyası*(383), 25-28.
- Oktar, S. A. (2011). *Vergi Hukuku* (Reviewed and Updated 6<sup>th</sup> Edition). İstanbul: Türkmen Kitabevi.
- Özyer, M. A. (2001). *Açıklama ve Örneklerle Vergi Usul Kanunu Uygulaması* (1<sup>st</sup>Edition). Ankara: Maliye Hesap Uzmanları Derneği, Yıldız Ofset.
- Saygılıoğlu, N. (1987). *Vergi Hukukunda Yorum*. Ankara: Maliye ve Gümrük Bakanlığı Araştırma, Planlama ve Koordinasyon Kurulu Başkanlığı Yayın No: 1987/288.
- Şenyüz, D. (2015). *Vergi Ceza Hukuku (Vergi Kabahatleri ve Suçları)* (8<sup>th</sup> Edition). Bursa: Ekin Yayınevi.
- Şenyüz, D., Yüce, M., & Gerçek, A. (2015). *Vergi Hukuku (Genel Hükümler)* (6<sup>th</sup> Edition). Bursa: Ekin Kitabevi.
- Tosuner, M., & Arıkan, Z. (2018). *Vergi Usul Hukuku* (Reviewed and Revised edition). İzmir: Kanyılmaz Matbaacılık.
- Uyanık, N. K. (2001, Ekim). Genel Tebliğler ve Muktezalar. *Vergi Dünyası*(242), 66-73.





# Tax-Related Aspect for Real Property Commerce in Turkey

Hakan Bay

## 1. Introduction

Real property sector occupies an important position in Turkey. Real property commerce in our country is not only recognized as a manner for meeting the needs of accommodation, but also as a reliable investment instrument. This is what makes real property commerce important. In fact, the title deed fees are required to be paid based on the real buying – selling price within the scope of transfer and acquisition of real property. Additionally, where the owned real properties are sold within five years after acquisition and the acquired income exceeds the exemption amount, it is a must to declare it as gains from appreciation. On the other hand, commercial earning and gains from appreciation must be distinguished properly within the scope of real property commerce. Where “continuity of activity” is the core element in real property commerce, the acquired income is classified under commercial revenue. However, where the title deed fees and income tax are not paid in full and properly within the scope of real property purchasing & selling transactions, it will be tax evasion for the government, and a fined assessment for the taxpayer. It is of vital importance for the citizens, owning real property, to be sensitive about the burden of financial liabilities, as well as providing accurate declarations in commercial transactions for real property. Undervaluation of the sale price is one of the most frequently faced ways for tax evasion, which is applied for paying less amounts of title deed fees in the purchasing & selling process.

In this study, the points that are to be taken into consideration by the taxpayers will be outlined, after mentioning the status of real property commerce against tax legislation. In addition, the impacts of the taxational burden of real property commerce on the housing sales and taxpayer behaviors will be analyzed.

## 2. Real Property Concept

Property right, which is recognized within the scope of personal assets of individuals on belongings (Esmer, 1998, p. 55) is one of the rights entitled by legal order and protected by law. According to 1982 Constitution Act, each and everyone is entitled with the property right, unless it is not for the good of society. The property right can be summarized under two categories as “movables” and “immovables” based on the type of belonging. In our country, immovable ownership has been substantially regulated based on Turkish Civil Code. In the Turkish Dictionary of Turkish Language Society, real property is defined as “immovable”. The term “immovable” was used instead of “real property” in the Turkish Civil Code No.: 4721, entering into force in 2002, unlike the former Civil Code. According to Article 704 of the same code, independent and imprescriptible rights registered separately in the book of land registers, including independent sections registered to the flat ownership book, constitute the subject of immovable property. According to the respective law, acquiring the right of immovable property is based on registry. Sales contract of immovables are executed by the land registry officers (Şenyüz, 2013, p. 254). Ownership is acquired before registry in case of inheritance, court decision, compulsory enforcement, occupancy, expropriation, including those prescribed by law. The definition of immovable property is not included in tax laws. Additionally, the term “real property” is still being used as in the former Civil Code, within other tax laws, particularly in Tax Procedural Law and Income Tax Law. According to Article: 269 under the headline “Real properties” of Tax Procedural Law, complementary components of real properties and accessories, instruments and machineries, vessels, other vehicles and incorporeal rights are recognized under real properties. According to the Income Tax Law, Article: 70, the following are recognized as real property by law;

✓ Land, building, mineral waters, spring waters, quarries, sand and gravel production areas, brick and tile yards, saltpans, including the complementary components and accessories,

- ✓ Catch locations and fish ponds,
  - ✓ Rights that are recognized under real property (easement, usufruct, resource right, etc.),
  - ✓ Vessels, shares of ship, all motor-powered loading and unloading vehicles.
- It has been accepted as a real property in terms of the implementation of the law.

### 3. Real property buying & selling and Taxational Liabilities

People intend to buy a real property in order to protect themselves from the nature. Besides, owning a property returns as an income due to the appreciation for their owners as an investment instrument, as well as a side income thanks to its rental income. Some people even have a profession in property buying & selling for living off.

**Table 1. House Sales by years**

Year	For T.R. Citizens	For citizens of other countries	Total (qty.)
2013	1.145.009	12.181	1.157.190
2014	1.146.422	18.959	1.165.381
2015	1.266.490	22.830	1.289.320
2016	1.323.264	18.189	1.341.453
2017	1.387.080	22.234	1.409.314
July 2018	755.236	14.674	769.910

**Reference:** [http://www.tuik.gov.tr/PreTablo.do?alt\\_id=1056#](http://www.tuik.gov.tr/PreTablo.do?alt_id=1056#) This address was used by be for compiling and constituting the table.

Construction industry is the locomotive of Turkey's economy. Having a direct effect on 1/3 and indirect effect on 2/3 of the entire economy, this sector involves approximately 232 sub-sectors, as well (Kızılot, Sarısu, Özcan, & Kızılot, 2008, p. 115). As can be seen in Table 1, there has been a significant increase in the number of houses sold to both T.R. citizens and the citizens of foreign countries since 2013 in our country. In fact, 1.409.314 houses were sold to their new owners in total by the year 2017. Due to the sales transactions leading to a decrease in the assets, real or legal entities have the opportunity to generate income/profit. The income acquired from the immovables, following the legal transactions that are carried out based on registry in land title, may be subjected to various taxes and taxation terms based on the ownership type of the seller within the scope of tax law (Demirli & Ayyıldırım, 2016, p. 199).

#### 3.1. Buying & Selling Real Property within the perspective of Income Tax Law

Buying & selling real property are subjected to various provisions in terms of Income Tax Law based on whether the activity is continuous, or not. Where the activity is continuous, the acquired income is subjected to taxation like a commercial earning. The income, acquired within the scope of certain situations, are named as other income and earnings, subjecting the part that exceeds the limits of exceptions, to taxation.

##### 3.1.1. The state of continuous activity

According to Income Tax Law, Article: 37, the income from any and all commercial & industrial activities are recognized as commercial earning, giving the judgement that the earning of those, who continuously carry out activities like buying & selling and construction works of real properties, is categorized under commercial. As can be clearly understood from the provisions of the article, for the income obtained via selling & buying real property to be recognized as a commercial earning, this activity must be performed continuously. There are 3 critical indicators for specifying the qualification of obtained income.

### 3.1.1.1. Continuity

The first factor to be taken into consideration in terms of designating the nature of acquired income is on whether the activity is continuous, or not. The most essential indicator of continuity is the frequency of transactions for earning income. The frequency of transactions is designated based on selling more than one real property within the same calendar year or selling real properties successively within more than one following calendar year. The income, acquired by those who perform this activity as a profession, is recognized as commercial income.

According to the decision no.: E.2003/233, K.2003/414 taken by Council of State Tax Courts on 14.11.2003, continuity is a must for recognizing an income as commercial, earned by buying, selling and constructing real properties, thus being subjected to taxation. The continuity of a transaction, on the other hand, is determined based on its recurrence within the same taxation period, or on whether it was performed during the previous taxation period, as well. Where a trade organization is not clear in terms of financial and formal aspects, the frequency of income-leading transactions is the most objective measure that determines the continuity factor (Batı, 2016, p. 1227).

### 3.1.1.2. Intention

Another factor, which is of importance in determining the nature of income, is the intention of selling transaction. Under certain circumstance, more than one real property may be purchased or sold. In this case, the item of income may be designated as per the intention. Where the real property is purchased or sold for earning an income, it is classified within the scope of commercial earning. However, where an income is earned by buying / selling only for meeting personal needs or protecting personal assets without any intention as above stated, it is recognized in gains from appreciation.

### 3.1.1.3. Existence of Commercial Organization

What matters in commercial activity is the will and intention for continuity of the one, who performs the activity. Objective indication of this measure, having a subjective nature, which depends on the will and intention of the concerned, is the existence of a commercial organization. Where the activity is performed within a commercial organization, it must be confirmed that the activity was either performed with the continuity will & intention, or otherwise performed as accidentally (Özbalcı, 2007, p. 291). A commercial organization is established by fulfilling the following partially or as a whole: reserving capital, starting a business, employing workers, trade registration, etc. However, examining the organization, who carries out this activity, together with all factors, it is a must for this organization to have the potential to earn income, as well as exceeding the scope and limits of personal needs. Otherwise, existence of an organization is not possible. Where real property buying & selling is performed within the organization for even once, it is recognized as commercial income.

The provisions of Income Tax Law, related to commercial income, with regards to buying & selling real property, are not limited to buildings and houses. Selling fields and lands is recognized within this category, as well. According to Article: 37, Subparagraph: 6 of the respective law, the income, which is earned by selling a purchased land, or obtained via exchange, partially or completely, by being parcelled out within 5 years starting from the day of acquisition or in the later years, is recognized as commercial income. Where real properties, bought for personal use or protecting personal wealth, are sold out in a manner going beyond its purpose, it is aimed at subjecting the earned income to taxation. In fact, a landed property cannot be purchased for personal needs, where it is possible to parcel out this land. A landed property, bought for protecting personal wealth is to be sold out based on certain reasons and in a form as bought. Parcelling out is not a transaction that is neither related to protecting personal wealth nor required, but rather is an objective measure for tendency on commercial-oriented income earning. The most typical & speculative action within the scope of real properties is buying landed properties by parcelling them out. Selling a landed property after being parcelled out clearly sets forth the intention on earning income continuously, as well as the existence of a labor-oriented commercial organization (Özbalcı, 2007, p. 299). However, there is a critical point that should not be ignored. Parcelling out of a landed property, which was bought or obtained via exchange must be performed within 5 years after the day of acquisition. The date of selling is not important with regards to

designating the nature of income. Parcelling out of a landed property, and selling it as well, is not recognized as a matter that needs to be approached within taxational aspects.

### 3.1.2. Carrying out of an activity impermanently

According to the repeating Article no.: 80 of Income Tax Law, subparagraph: 6, incomes, which are earned by selling out real properties within 5 years after the day of acquisition, are recognized as gains from appreciation. The term “sell out”, as stated in the article, can be described as selling, transferring & assigning against for hire, exchange, barter, expropriation, nationalization, as well as reserving as capital for trading companies, up of real properties. Acquisition amount for selling out of real properties is designated based on the price index increase rate of sold out goods and rights, as prescribed by Turkish Statistical Institute, excluding the month when they are sold out. For increasing the acquisition amount at the price index increase rate of the producer, price index increase rate must be at least 10% or higher between the buying & selling dates.

There are two factors that need to be observed for the earned income to be recognized as gains from appreciation. The first is the manner the real properties are acquired. It is not possible for the income, earned after selling out the real properties, which are acquired by inheritance or by non-controversial impropriation, to be subjected to taxation as gains from appreciation. Therefore, any earning, acquired by impermanent buying & selling activity for the real properties – regardless of the acquisition manner, excluding those non-controversially acquired, will be recognized as gains from appreciation. Another matter, which needs to be taken into consideration, is the period of time during which the real properties are kept. As can be clearly understood from the letter of respective law, earnings, acquired by selling out of the real properties within 5 years after the day of acquisition, are recognized as gains from appreciation. On the other hand, any earning, acquired by selling the real properties which are kept in reserve for more than 5 years are not subjected to taxation. The law-maker assumes that the respective real-property, acquired for personal usage or protecting personal inheritance, is not to be sold within 5 years. In other terms, it is deemed that the sales transactions, carried out within 5 years, are oriented at deriving a profit. Acquisition date of real properties are recognized as the deed registration date for acquisition via buying, while the allocation date of real properties by cooperatives to their partners under the respective titles are recognized as the occupancy permit of real properties against land share or by construction. The tax-exempt amount for gains from appreciation, acquired within a calendar year is 12.000 TL in 2018.

**Table 2. Calculating The Tax Payable**

<b>As commercial income</b>	<b>As other earnings</b>
Tax is calculated by applying the taxation tariff in Article: 103 of Income Tax Law, based on the net profit amount, considering Income Tax Law – Article: 40 (Deductible tax) and Article: 41 (payments that are not recognized as expense) via books as required to be kept within the scope of Tax Procedural Law.	These taxpayers do not keep the accounts. Net profit in the appreciation is designated by deducting the prime cost of sold out goods and rights, expenses on the seller for selling out, paid taxes and fees from the amount money, including any benefits recognized as Money via goods,
<b>Income Tax Tariff to be applied for incomes from 2018</b>	
Up to 14.800 TL	15%
2.220 TL or more for 14.800 TL of 34.000 TL	20%
6.060 TL or more for 34.000 TL of 80.000 TL	27%
18.480 TL or more for 80.000 TL of more than 80.000 TL	35%

<p>For example, assuming that an individual, who performs buying &amp; selling real property as a profession, has a net commercial income profit of 100.000 TL for the calendar year 2018, the taxable amount is (excluding the advance taxes paid during the period, including those deducted by attachment)</p>	<p>A flat, which is bought for 150.000 TL on 16.04.2016, is sold for 250.000 TL on 24.02.2018. Since it is sold before completing the 5-years-of-period, this earning is subjected to taxation as gains from appreciation. NPPI (National Producer Price Index) for March 2016 (one month before the flat is bought) is 251,17, while it is 319.60 in January 2018 (one month before the flat is sold out). It can be clearly seen that the indexing rate increase is over 10% within the respective period (whereas; <math>319,60 - 251,17 / 251,17 = \%27,24 &gt; \%10</math>, therefore indexing is performed). Indexed cost price of the flat is calculated as 190.866,74 TL (<math>150.000 \times 319,60 / 251,17</math>). The earning, after selling out the flat, is 250.000 TL. Therefore, gains from appreciation is equal to 59.133,26 TL (<math>250.000 - 190.866,74</math>). Since the tax-exempt amount for the earned amount is 12.000 TL, the gain from appreciation, to be declared, is equal to 47.133,26 TL (<math>59.133,26 - 12.000</math>).</p>
<p>Taxable income            100.000 TL Calculated income tax    25.480 TL</p>	<p>Taxable income            47.133,26 TL Calculated income tax    9.605,98 TL</p>

**Reference:** Regulated by me as per the applicable legal regulations.

### 3.2. Buying & Selling Real Property within the scope of Tax Procedural Law

For those who are conferred with responsibilities due to continuously dealing with buying & selling real property, there are certain liabilities that are required to be fulfilled as per the Tax Procedural Law. According to this law, Article: 153, these taxpayers must declare the incorporation date. These taxpayers are also required to keep the accounts, regulate invoices for the sales transactions to be made by them, as well as recording the regulated invoices in the mandatory books within 10 days. For those that deal with buying & selling real property, there is no requirement for keeping the accounts, nor regulating a document for the sales transactions to be fulfilled.

### 3.3. Buying & Selling Real Property within the scope of Corporate Tax Law

According to the 4<sup>th</sup> article of Corporate Tax Law, subparagraph: (k), the following are exempt from taxation: building cooperatives stating not to perform profit distribution based on the capital, not to allocate any share for their board president and members, not to allocate the reserve funds, solely dealing with business transactions with the partners in their articles of incorporation, while following these provisions de facto; building cooperatives not involving any of those having labor relations with real entities partially or completely undertaking the respective constructions works, representatives of legal entities, including those deemed to have relations with them and those above stated, while having registered the building license and landed property deed on behalf of the cooperative legal entity. Additionally, the earnings of organizations, acquired by continuously dealing with buying & selling real properties, are subjected to corporate taxation.

Exception clauses are included in the law, in addition to the exemption clauses, in order to ensure that the capital structures of organization are strengthened, that the financial problems are eliminated, and that affiliated assets are used more efficiently within the scope of economic activities. 50% of the earnings, by selling out of real properties registered within the current assets for at least two calendar years is exempt from corporate taxation, according to article 5/1-e article of this law. Within this scope, the real properties must have been registered to deed on behalf of the respective organization, for being subjected to this exemption. Earnings by organizations, dealing with real property business and renting, acquired through selling out of exempt-immovables, which are kept for the aforementioned

reason, are not subjected to this exemption. For benefitting from this exemption, the following required are to be met all together:

- The real property must be kept within the current assets of the organization for at least two calendar years (730 days), for exemption;
- The sales price of the real property must be collected until the end of second calendar year, following the date when the sales transaction is completed;
- The part of the earning by selling real properties, to be subjected to exemption, must be transferred to a private fund account in liabilities, and this amount must be kept in the aforementioned account for five years after being sold;

Additionally, the exemption right must be exercised during the year when the real property is sold, it cannot be transferred for the next periods. For example; assume that a real property, bought on 14.02.2011, is sold on 21.01.2018 in a manner meeting each and every of the respective requirements; the earning acquired from this transaction is equal to 200.000 TL. For 100.000 TL of this earning (50%) is subjected to exemption during advance tax periods and corporate tax declarations in 2018. It is a must for this exempt amount to be transferred to a private fund account in liabilities, while not transferring it to any account other than capital formation, nor withdrawing it until 31.12.2023. For 100.000 TL, to be declared by the respective enterprise for corporate tax return concerning the earnings in 2018, the corporate tax rate will be 22%, which is  $100.000 \times 22\% = 22.000$  TL. Where the earning amount in the private fund account is transferred to another account within five years, except for capital formation, withdrawn from the account or transferred to the headquarters by the limited taxpayer organizations, as well as the liquidation of the same enterprise, unaccrued taxes, including loss of tax penalty and interest of default are collected.

### 3.4. Buying & Selling Real Property within the scope of Value Added Tax Law

According to the first article of Value Added Tax Law, deliveries and services provided in Turkey within the scope of commercial, industrial, agricultural and self-employment activities are subjected to value added tax. Similarly according to the second article of the same law, delivery is defined as follows: the right of disposition on a good being delivered to the buyer or those acting for and on behalf of the buyer, by the owner or those acting for and on behalf of the owner. Direct delivery of a private ownership of a landed property to cooperatives is not subjected to taxation (excluding being sold within an auction). According to the law, selling real properties, which are not included in the commercial enterprises, is exempt from taxation. However, the earning, acquired by carrying out buying & selling activity continuously for real properties (no matter as a real entity or a legal entity), is recognized as commercial income, which requires to become a taxpayer within the scope of Value Added Tax Law. Where the earning is recognized as an appreciation, no taxation liability is assigned to the activity for being non-controversial.

**Table 3. VAT rates to be imposed on real property sales**

Type	Specifications of the real property	Tax value per m <sup>2</sup> for landed property;	Net Area Up to 150 m <sup>2</sup>	Net Area More than 150 m <sup>2</sup>
House	Where it is in metropolitan city,	0 – 1000 TL	1%	18%*
	Where it is luxury or first class construction,	1.000 TL – 2.000 TL	8%	
	Where it is not located within areas that are designated as reserve-risky, or areas having risky structures.	Over 2.000 TL	18%*	

## Tax-Related Aspect for Real Property Commerce in Turkey

	For those whose building license is dated after 01.01.2017			
<b>House</b>	For those located in non-metropolitan provinces, including the ones apart from those above stated.	-	1%	18%*
<b>Work place</b>	For delivery of each and every workplace regardless of its size, construction quality and type	18% ×		
<b>Landed property and field</b>	Regardless of its location	18%		

\* This rate shall be applied as 8% from 05.05.2018 until 31.10.2018 due to the Cabinet Decree no.: 2018/11674

\* This rate shall be applied as 8% from 18.05.2018 until 31.10.2018 due to the Cabinet Decree no.: 2018/11570

**Reference:** Regulated by me as per the applicable legal regulations.

According to this law, Article: 13, subparagraph (i); delivery of houses or workplaces to Turkish citizens living abroad for more than six months with work or residential permits, to foreign real entities who are not domiciled in Turkey, including organizations that do not generate income via a workplace or permanent representative, is exempt from taxation, provided being applied in the first delivery of buildings constructed as houses or work places, as well as bringing the amount to Turkey as foreign currency. Otherwise, the tax, which is not collected in due time, must be paid by the person, selling out the real property, before title deed transactions, including the deferment interest.

Real property sales of the organizations are subjected to taxation by law. However, the following handover transactions are exempt from taxation according to this law, Article: 17, sub-article: 4, subparagraph (r): handover of real properties, kept within the current assets of organizations for at least two calendar years (landed property, field, building) by being sold out; handover of real properties owned by debtors and their guarantors (including those being sold by auction) to banks, leasing and finance companies for payables to the same; handover of these real properties by the leasing and finance companies. However, this provision is not applicable for real property deliveries by organizations doing business on the assets recognized within the scope of exemption (valuation by buying, selling or leasing), which are kept in their current assets (GİB, 2014).

Selling immovables (house, work place, landed property, field) via auction by enforcement offices, court sales public service offices, municipalities, including other respective public or private legal entities; as well as selling other goods and rights which are classified to be immovable, are subjected to taxation according to the first article, third sub-article, subparagraph (d) of this law. The taxation rate for delivery of houses by auction, which are not over 150 m<sup>2</sup>, is 1%, while it is 18% for other circumstances and other immovables (Doğrusöz, 2010).

### 3.5. Buying & Selling Real Property within the scope of Real Estate Tax Law

Real estate tax is imposed on buildings, landed properties and fields. The taxpayer is the owner of the building, landed property and field; owner of the usufruct, if any; where both are not available, acting as owners of building, landed property and field. During the sales of the real property, both the buyer and the seller are responsible for paying the outstanding real estate tax amount for the year the real property is sold, including those for previous years.

Real estate tax liability of those, buying real property, starts in the beginning of the year after the one during which the sales transaction is completed. Therefore, real estate tax obligation for those, selling real property, ends by the end of the year, during which the sales transaction is completed. Those, selling real property, have no liability to give a notice or statement regarding the real estate tax



for sales transaction. According to the Real Estate Law, Article: 33, the real property passing in the other hands after being sold, is one of the reasons amending the tax amount, which must be declared. Therefore those, buying a real property, must submit real estate tax notice in due time. Real estate tax declaration must be sent to the municipality, where the real property is located as follows:

- For newly constructed buildings, in the event that a part of the building is being used when the construction process is finalized or before it is finalized, within the budget year when the respective part started to be used,
- In case of other reasons amending the tax value asserted by law, within the budget year when the amendment is applied.

In the event that the reasons amending the tax value occur within the last quarter of the budget year, the declaration is to be submitted within three months after the date of event. In case of real property joint ownership, the owner taxpayers are required to submit either jointly or solely signed declaration. In case of common ownership, the declaration must be solely submitted.

Real Estate Tax comprises of two main sections. On the first section, we can see the Building Tax, while the second section is gathered under the topic "Land Tax" (Tosuner & Arıkan, 2018, p. 476). Real estate tax rate varies depending on the type and location of the real property. For example, while the building tax rate is 0.1% for houses, it is 0.2% for other buildings. These rates are applied with an increase of 100% for areas within the boundaries of metropolitan municipality and urban areas, where Metropolitan Municipality Law no.: 5216 is applied. Where those certified to have no income, whose incomes comprise of wages received from social security institutions as established by law, veterans, people with disabilities, including widow and orphans of martyrs, excluding those who are under 18 and having a guardian, have a single house not exceeding 200 m<sup>2</sup> (gross) in Turkey, the tax rate for these houses will be 0.0%. This provision is applied on the shares of the aforementioned people, where they have a single house by share. Houses, which are used for resting within certain periods of time, (i.e. summer house) are not subjected to this provision. In other terms, the aforementioned people do not de facto pay tax for the houses they own.

**Table 5. Real Estate Tax Rates**

	<b>Ho use</b>	<b>For work place and other buildings</b>	<b>Fi eld</b>	<b>L and</b>
<b>Normal regions</b>	0.1 %	0.2%	0. 1%	0. 3%
<b>Within the boundaries of metropolitan city and urban areas</b>	0.2 %	0.4%	0. 2%	0. 6%

**Reference:** Regulated by me as per the applicable legal regulations.

Fields and lands that are within the boundaries of Turkey, are subjected to the provisions of Real Estate Tax. The field, parcelled out by the Municipality within the boundaries of it, is recognized as a land. The field tax rate is 0.1%, while it is 0.3% for lands. These rates are applied in a manner increased by 100% within the boundaries of metropolitan municipality and urban areas. According to the Code of Protection of Cultural and Natural Properties, Article: 12, 10% of the accrued real estate tax is accrued as a contribution to the protection of immovable cultural properties, thus being collected by the respective municipality with the real estate tax.

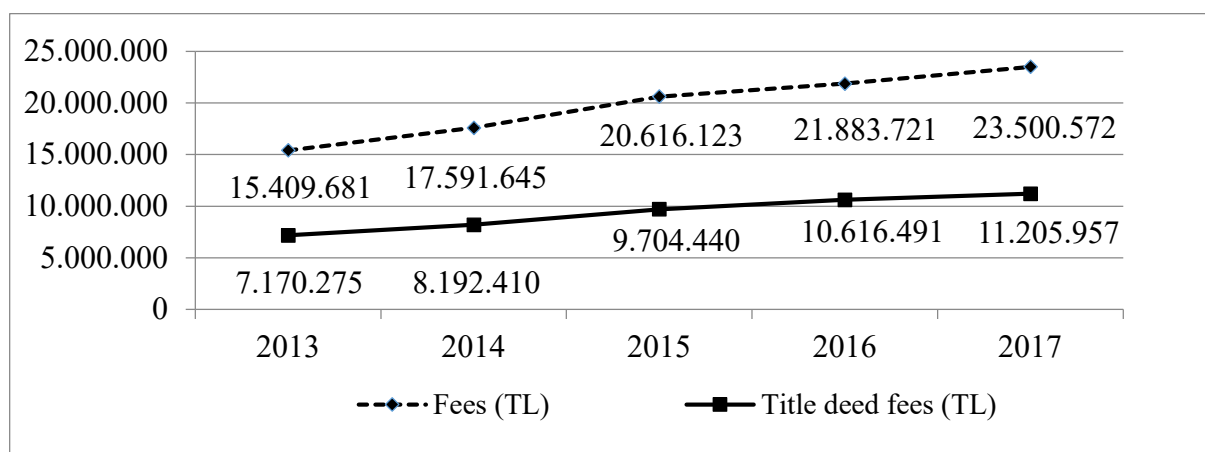
### **3.6. Buying & Selling Real Property within the scope of Act of Fees**

Fees are financial liabilities imposed for individuals, benefitting from certain public services, to contribute the costs of such services to a certain extent, or while these individuals carry out certain transactions, based on enforcement factor (Tosuner & Arıkan, 2018, p. 471). Title deed transactions, within the tariff no.: (4) of Act of Fees no.: 492, are subjected to title deed fees. Title deed fees for buying & selling real property are imposed in the rate 2% respectively for the transferor and transferee over the real estate tax, not less than the declared transfer and acquisition amount, (however this rate shall be applied on the rate 1.5% for both the buyer and seller until 31.10.2018 according to the Council of

Ministers' decision no: 2018/11674), and it is paid individually by the buyer and the seller. The transactions within the scope of buying & selling an immovable can be carried out in the directorate of land registry within the district, where the immovable is located, or in the nearest directorate of land registry, in the event that the residential address is registered in another city. Each and every directorate of land registry is authorized to carry out the respective transactions on behalf of the others. Title deed transactions cannot be fulfilled, unless the title deed fees are paid.

During the transfer and acquisition of a real property, it is a must to declare the actual buying & selling amounts of the real properties for the title deed transactions, to pay the title deed fees over these actual amounts, as well as submitting income or corporate tax return in case of any income that is required to be declared. The most frequently encountered issue during the buying & selling process of a real property is declare the sale price lower than it actually is for paying less title deed fees. Since the title deed fees are paid respectively both by the buyer and the seller by law, declaring the price lower than it actually is, seems on the advantage of both parties. However, where this violation is detected by the Tax Administration, both the buyer and the seller are subjected to fined title deed fees assessment based on the gap between. According to this law, Article: 63, the fee amount, which is equal to the gap, is collected with a loss of tax penalty of 25%.

A significant part of the immovables, which are subjected to title deed fees, comprise of the buying & selling transactions for houses. The houses to be social or luxury, or having a low / high price are not taken into consideration for setting the fee amount to be paid. The fee amount to be paid is settled by multiplying the immovable price with the fixed fee rate.



**Figure 1. Share of title deed fees within all the fees for the last 5 years**

**Reference:** Regulated by me as per the data of Revenue Administration.

1.409.314 houses were sold by the end of 2017. Considering that the title deed fees are paid both by the buyer and the seller respectively, these fees have become a public income issue that concerns many taxpayers. Examining the budget revenue items, it can be seen that the title deed fees have not only increased in terms of transaction volume, but also having a larger share within all the fees.

**Table 4. Share of collected title deed fees within all the fees**

	2013	2014	2015	2016	2017
<b>Fees</b>	15.409.681	17.591.645	20.616.123	21.883.721	23.500.572
<b>Title deed fees</b>	7.170.275	8.192.410	9.704.440	10.616.491	11.205.957
<b>Share of title deed fees within all the fees</b>	%46,53	%46,57	%47,07	%48,51	%47,68
<b>Number of houses sold</b>	1.157.190	1.165.381	1.289.320	1.341.453	1.409.314

<b>Increase of the houses sold compared to the previous years by number</b>		8.191	123.93 9	52.133	67.861
<b>Increase of the houses sold compared to the previous years by rate</b>		%0,70	%10,63	%4,04	%5,05

**Reference:** Regulated by me as per the data of Revenue Administration and Turkish Statistical Institute.

As can be seen in Table 4, the share of title deed fees is 46.53% for 2013, while it is 47.68% in 2017. The house sales increased by 21.78% during the same period. This change has shown that construction sector, which is one of the most important industries in our economy, is of great importance in terms of tax revenue.

#### 4. Conclusion

Real property sector occupies a significant place for our national economy based on its Dynamics. Ignoring 2017/2018, positive expectations, including domestic and foreign demand increase with the positive contribution of international market, thanks to the low inflation and interest rates of late years, have led a significant production in the industry, particularly with the houses in real property market. Additionally, real property investment is still a popular investment tool for some. These individuals have the opportunity to sell their properties when they want or expected an appreciation. Real property sales basically impose tax liabilities on the sellers. The first one is being subjected to taxation under required conditions to income and corporate tax; and the second one is the title deed fees that are to be paid during the title deed transactions.

Setting a lower price than the actual real estate tax amount, as well as those operating off the books within the sector lead loss of tax in sales of real properties. Therefore, a unity and stability is to be ensured for the legislation on the valuation process for taxes and fees, thus setting more realistic tax values. Inconsistent tax rates, which are shown to be the main reason for operating off the books in the industry, must be balanced, and audits are to be more dense towards preventing the off the books business in real property sales. For these regulations to be efficient, the impact of temporary rate discounts must be measured by all means over the sales transactions and tax revenue, and where the results are positive, VAT rates are to be re-settled as 1% and 8%. Similarly, VAT exception for real property sales transactions against foreign currency for limited taxpayers, which stands up to be a barrier against the fairness and equality in taxation, must be regulated.

Another regulation that is to be applied by the tax administration with regards to the taxational size of real property sales, must be for title deed fees. Given that the fee amount is too high compared to the services provided, and that the fee rates are in a continuous & inconsistent change depending on the tax and economy policies, it becomes challenging for the title deed fees to be evaluated within the scope of a traditional fee. In that, the amount, paid as a fee, should not be too high compared to the service provided. However, title deed fees, as of today, are recognized to be a tax received via real property sales in terms of finance literature. Considering that the title deed fees are generally paid de facto by the buyer during buying & selling transactions of a real property between real entities, paying a fee over the actual real estate value will be almost impossible for every human being, who naturally intends to maximize the personal benefits. For this reason, title deed fee rates are to be lowered. It is clear that regulating the rate, which was settled to be 1.5% following the temporary regulations reviving the economy, as 1%, will make it easier to settle the actual value of a real property, and that the loss of taxes due to the fees will be able to be covered with the taxes to be imposed through higher tax assessments.

## 5. References

- Batı, M. (2016). Forward Sözleşmeleri Vergiden Kaçınma Aracı Mıdır? *Ankara Üniversitesi Hukuk Fakültesi Dergisi*, 65(4), 1217-1244.
- Demirli, Y., & Ayyıldırım, K. (2016). Yabancıların Türkiye’de Taşınmaz Satışından Elde Ettikleri Kazançların Vergilendirilmesi. *Ekonomik ve Sosyal Araştırmalar Dergisi*, 12(1), 195-212.
- Doğrusöz, A. B. (2010, Ekim 21). *G.V., K.V. ve KDV Karşısında Taşınmaz Satışı*. Retrieved from <http://www.bumindogrusoz.com/article/gv-kv-ve-kdv-karsisinda-tasinmaz-satisi> on 08.08.2018.
- Esmer, G. (1998). *Mevzuatımızda Gayrimenkul Hükümleri ve Tapu Sicili*. Ankara: Tapu Kadastro Vakfı Yayınları.
- GİB. (2014, Nisan 26). *Katma Değer Vergisi Genel Uygulama Tebliği*. Retrieved from [http://www.gib.gov.tr/fileadmin/mevzuatek/kdvgeneluygulamatebliği/kdvgeneluygulamatebliği\\_2f.pdf](http://www.gib.gov.tr/fileadmin/mevzuatek/kdvgeneluygulamatebliği/kdvgeneluygulamatebliği_2f.pdf) on 07.08.2018.
- Kızılot, Ş., Sarısu, E., Özcan, S., & Kızılot, Z. (2008). *Gayrimenkul Rehberi* (Expanded 4<sup>th</sup> edition). Ankara: Yaklaşım Yayıncılık.
- Özbalcı, Y. (2007). *Gelir Vergisi Kanunu Yorum ve Açıklamaları*. Ankara: Oluş Yayıncılık A.Ş.
- Şenyüz, D. (2013). *Borçlar Hukuku Genel ve Özel Hükümler* (7<sup>th</sup> Edition). Bursa: Ekin Yayınevi.
- Tosuner, M., & Arıkan, Z. (2018). *Türk Vergi Sistemi* (23<sup>th</sup> Edition). İzmir: Kanyılmaz Matbaacılık.



# Taxation of Athletes in Turkey

Zeynep Arikan

## 1. Introduction

Sports are one of the areas that is need the most for people to have a healthy life. It ensures a healthy and conscious life effecting not only the body but also the mental health. It is a must for a health social life. Briefly, it is a physical & mental rehabilitation method. Therefore, it is of great importance in our lives. That being the case, the state must develop and promote sports activities on national, regional and local level. Developments in globalization and communication area ensured each and every sports branch – particularly football - expanded across the society,

Taxational policies of the state, used by the state, are also important while supporting and promoting sports. The objective of this taxational policy is to ensure the economical development, while also allowing the society to reach a certain economic welfare level. Therefore, a taxational policy, which is in harmony with the socio-economical and social structure of the state, is to be followed. Having the ability to pay is of importance in terms of ensuring this harmony. However, the principle “ability to pay” cannot be exactly reached in terms of imposing taxes of our national sports activities. Considering all these matters, athletes not reaching the ability to pay taxes in Turkish Tax System is a controversial topic, which must be discussed in detail.

## 2. Definition & Factors of the Salary, including the payments that are recognized as salary for athletes

Salary is an income obtained for sometimes bodily, sometimes physical and sometimes both bodily and physical efforts. According to Income Tax Law (ITL), Article: 61, the salary is the money & valuable articles provided against services of employees by their employers, working in a certain business, including benefits that are representable with money (i.e. house, vehicle). According to this provision, all the payments that are not recognized under exemption and exception, defined under the term “salary” no matter how they are named, are recognized as salary. Paying the salary under allowance, indemnification, cash indemnity (indemnity for custody of funds), appropriation, raise, advance payment, dues, per diem, bonus, income reserve, etc., or paying a certain percentage of the profit provided it is not characterized under partnership (i.e. share of profit) do not change its nature.

Taxation of a payment as salary is detected based on the following four factors according to ITL: Where these factors accrue all together, the income is subjected to taxation as a salary; otherwise it is not recognized as salary. Four fundamental factors are as follows:

- Working under an employer: For the payment to be recognized as a salary, the first required factor is the employee to work under an employer. The employer is a real and legal entity employing the respective service provides in line with his/her orders and instructions. Employee’s dependency on the employer may be de facto, while also having the possibility to be legally dependent based on the regulations or contracts.

- Working in a workplace: According to Tax Procedural Law, Article: 156, a workplace is an area providing services, which is assigned for commercial, industrial, agricultural and occupational activities to be carried out. Dependency on such places is on legal scope. There is no requirement for the service to be performed de facto.

- Payment in the form of money, valuable items, benefits representable with money: The payment may be made in cash, while it can also be made in the form of valuable items or benefits. Benefits, which cannot be represented by money, are not recognized as salary. (i.e. employees to use a swimming pool, located in the workplace, during the lunch break).

- Remuneration: Payment must be corresponding in terms of bodily, intellectual efforts. Payments, which are not paid for supplying services, are not recognized as salaries, but rather as donation or grant. Payments for being supplied with services may be Daily, monthly, annually or hourly.

Transfer fees of athletes or payments under other manners, including the benefits provided, are recognized within the payments that are deemed to be special by ITL, Article: 61. Such payments as wage, Premium, which are regularly made to the athletes, are recognized as salary in general. Additionally, the transfer payments, including the benefits provided, are recognized within the special payments.

Where the active sports lives of athletes end, the income from the jubilee match, organized just once as per the jubilee rules of the respective federation, belongs to that athlete. These incomes are recognized as salary, as well. On the other hand, incomes obtained based on contracts, for promoting a product, are recognized as salary, too.

Payments made during transition from amateurism to professionalism, including those made in case of death, and injustice termination indemnities, are recognized within the scope of salary payments.

In cash and kind rewards given to the athletes, who display high achievement in national and international events, as well as the payments made to the athletes, winning World Olympics and European Championship, are recognized as salary payments, too.

### **3. Taxation of the Salary**

Athletes are subjected to taxation by means of a different method than other salary earners.

#### **3.1. Taxation of Salary in General**

Salary incomes are subjected to taxation under two ways as real salaries and other salaries. The actual method is significant in terms of salary taxation. The tax is imposed on the real and net amount of the income for this method. The net amount of the income is the net of amount after certain discounts on the money, valuable articles and benefits provided by the employer according to ITL Article: 63. In the real method, taxation is performed in two ways as checkoff taxation and declared taxation.

Checkoff of the tax by the authorities during the payment, which is deposited to the tax Office (withholding-stoppage), is checkoff taxation. Taxation of salary in the real method is performed based on this process. Briefly, the main method is checkoff taxation for imposing tax on the salaries. In this method, paid salaries can be subjected to taxation as per the progressive income tariff. Those, who are required to submit a declaration for salaries obtained in 2018 while declaring the salary via annual declaration: According to ITL, Article: 95, the following salaries are to be subjected to taxation via declaration:

- Salary earners, whose income is over 34.000 TL received from more than one employer, among those earning salary subjected to checkoff taxation from more than one employer (the amount stated on the second income share, within the tariff written in Income Tax Law, Article: 103),
- Employees, directly receiving their salaries from an employer living in a foreign country (excluding those subjected to exception),
- Embassy, consulate officers and personnel who are not eligible to benefit from the exception,
- The salary earners, who are deemed required to declare annual return by the Ministry of Treasury and Finance,
- Any salaries that are not subjected to checkoff taxation.

#### **3.2. Taxation System for Salaries paid to Athletes**

A special regulation is imposed on taxation of the athletes' salaries. Taxation of athletes has been confirmed to be performed via checkoff (withholding) method in ITL, provisional article: 72, while the withholding rate has been settled as per their leagues. The practice concerning the salaries paid to the athletes is on withholding checkoff taxation as per the provision of article, which has been validated until the end of 2019. The checkoff/withholding rates have been settled to be as follows:

- In league sports branches:
  - For top league: 15%
  - For the league under the top: 10%
  - For other leagues: 5%

➤ 5% for salaries made to the athletes that are not subjected to league method, including those competing in international contests.

With this practice, the costs of our national clubs are relatively lower compared to their competitors, thus ensuring a significant taxational advantage in terms of transfer costs.

As can be clearly seen, taxation of salaries, which are earned by athletes, is different from the general principles of salary taxation. Athletes are subjected to a special taxation regime. However, such taxation method may lead contradiction against “generality”, “justice” and “salary power” principles. Comparing with the non-athlete salary earners and also with the other income factors, it is possible to confront with such scenario:

While a self-employed doctor is subjected to taxation on a rate up to 35% as per the income taxation tariff, a normal salaried and minimum wage workman are subjected to taxation on the same amount, as well. On the other hand a football player playing in the Turkish super league, is subjected to taxation on a rate 15%, no matter how high his taxable income is. So, not only the self-employed doctors, but also salaried employees, officers, lawyers, pharmacists, including many occupational groups, even pop singers, pay too much tax. That being said, taxational convenience can be clearly seen for athletes. Turkey is like a heaven of tax in terms for athletes. This can be clearly understood once the taxation rates of football players in Turkey and the world are compared. Tax practices of countries are of great importance while designating the net salary of athletes, and transfer decisions. In Table 1, you can see various tax rates over the salaries of football players both from Turkey and other countries:

**Table 1. Salary tax rates of football players in Turkey and in all over the world**

Country	Rate	Country	Rate
Bulgaria	10%	Croatia	42,4%
Russia	13%	Spain	43,5%
Czech Republic	15%	Britain	45%
Turkey	15%	Italy	47,2%
Romania	16%	Germany	47,5%
Slovakia	25%	Ireland	48%
Poland	32%	Slovenia	50%
Norway	38,5%	Austria	50%
Greece	55%	France	50,2%
Denmark	55,8%	Finland	51,4%
Portugal	56,2%	Netherlands	52%
Swedish	57,1%	Belgium	53,5%

**Reference:** Türkiye’de ve Dünya’da Futbolun Vergi Oranları, 31-12-2017, [www.futbolakademi.net>2017/12>turk...](http://www.futbolakademi.net>2017/12>turk...) (Access date: 21.07.2018)

As can be seen in Table 1, taxation rate of football players is 15% in Turkey, while it is applied on low rates in Bulgaria, Russia, Czech Republic, Romania, etc. These countries are like a heaven for athletes. On the other hand, Sweden, Portugal, Denmark, Spain, Belgium, Finland, France are the countries having the highest taxation rates. These countries are like a hell for the athletes. A fixed and low-rate athlete taxation in Turkey, decreases the costs of clubs compared to their rivals, thus presenting serious advantages in transfer costs.

Incentives in Turkey’s sports are also of importance, as well. These incentives help developing the sports economy, increasing the success level in sports, as well as ensuring a health life. The level of these incentives in terms of serving the purpose will be displayed with the achievements in sports activities. However, it is not just about the success of the athlete. Comparing the purchasing power of the athletes and people, who are working poor or under hunger threshold, we cannot say that the intersectional social objective is consistent. In our country, the clubs have many income items like broadcasting, field advertisement, jersey, ticket sales, combined ticket, skybox sales, transfer fees. However, the clubs sometimes avoid paying the respective taxes for such incomes. In that, they have the opportunity to benefit from VAT Law, article 4/d and Corporate Tax General Communiqué serial no.: 1. According to the applicable law and this communiqué, clubs are exempt from taxation in certain income items.



Sponsorship expenses provide a significant advantage, as well. The entire expenditures for amateur sports branches, and 505% for professionals sports branches can be deducted from income and corporate tax assessment (ITL, article: 89/8 and VAT law, article: 10/b). Field, saloon and facility rents, expenditures for sports facilities, food expenditures of athletes, travel and residential expenditures, sports materials, transfer fees, Premium payment for athletes and sportsmen, houses, etc. can be deducted from income and corporate tax assessment as deductible sponsorship expenses.

Sports clubs and sports companies have the opportunity to receive income tax deductions from the athletes, provided it is used for activities in amateur sports branches (Akarca, 2018). Income tax amounts paid to the amateur athletes by sports clubs in our country based on “tax refund” practice are refunded to the employer to be used in amateur branches.

Based on the aforementioned regulation, after the whole income tax amount is declared and paid subjected to checkoff via payments to the athletes by sports clubs, including capital doing business in sports area of Turkey, it is projected to refund these deductions provided they are used for athletes, coaches and other personnel expenditures in the amateur branches (Law on making amendments on certain laws and decrees with Tax Law no.: 7103, 2018). With this practice, amateur sports is supported.

On Table 2, you can see the costs on tax and insurance liabilities, as well as their costs on the clubs within certain countries based on the same net salary hypothesis of football players.

**Table 2. Tax and Insurance Liabilities of Athletes in certain countries, including their costs burden on the clubs.**

Liabilities like tax, etc.							
Countries	Net price	Income tax rate (%)	Income tax	Security Premium worker share	Gross price	Social Security Premium (Annual)	Total cost
England	1.000 .000	45	818. 181	64.3 45	1.882 .527	259.7 88	2.142 .816
Spain	1.000 .000	45	818. 181	15.6 73	1.833 .855	73.80 1	1.907 .656
Russia	1.000 .000	13	149. 425	---	1.149 .425	183.7 23	1.333 .148
Turkey	1.000 .000	15	176. 470	27.3 98	1.203 .869	41.09 7	1.244 .960
Bulgaria	1.000 .000	10	111. 111	11.9 86	1.123 .097	16.54 4	1.139 .642

**Kaynak:** Türkiye’de ve dünyada sporcu gelirlerinin vergilendirilmesi, Vergi Portalı, 11 Temmuz 2018, <https://www.dunya.com/kose-yazisi/turkiyede-ve-dunyada-sporcu-gelirlerinin-vergilendirilmesi/421988>, (Access date: 20.08.2018).

As can be seen in Table 2, the liabilities, imposed by those insured, including the tax for national clubs who intend to offer a net salary to an athlete, may change the costs significantly (Büyük, 2018).

#### 4. Evaluation of Athlete Taxation in terms of Taxation Principles

Sports activities ensure positive externality. Therefore, it is of great importance to promote and support it in terms of taxational aspects. However, it should be remembered that the social balance is not to be broken, as well as keeping a balanced integrity with other segments with the correct policies. Examining the taxation of athletes:

- According to Article: 73, everyone is under obligation to pay taxes according to his financial resources. In here, the term “everyone” includes the athletes, as well. But it cannot be said that the athletes are subjected to taxation based on their income levels. In fact, Income tax rates concerning the

salary payments made to the athletes, were grouped within the scope of those in a league system and those, who are not, while being grouped based on non-existent, thus differentiating the tax rates. So, athletes were ensured to make payments based on their ability to make payments. This practice clearly shows that “financial power” principles are not recognized for taxation of athletes.

- According to 73th article, subparagraph, 2: “An equitable and balanced distribution of the tax burden is the social objective of fiscal policy”. The burden is not fair and just comparing the athletes and the other paid segment. In our country, where many salary earners are on or under hunger threshold, and where minimum-wage workers are subjected to a taxation rate of about 35%, the balance between the high-income group and the low income group was not completed consistently.

- Athletes are subjected to a different taxation compared to the normal salary earners. While normal salary earners are subjected to taxation based on the progressive income tax tariff, athletes are subjected to a plain (fixed) rate taxation. Fixed rate taxation decreases the incomes obtained from those having high incomes. This is equal to massive loss of tax and tax expenditures by the state (Öz & Akçay, 2013).

One of the fundamental taxation principles is to impose taxation on a higher level for those with high incomes, while imposing lower on those having lower incomes. While the football players from European football leagues, as the backbone of football, have higher tax rates, Turkey tries to withdraw the attention of stars in our country within the scope of this policy. This thinking manner is led by the fear of negative effects of high tax rates on Turkish football. However, no sector is subjected to a taxation rate, which is that much low. Therefore, imposing a really small amount of taxation on stars spoils the income distribution.

- According to the Football Finance Report, European football share is getting bigger day by day. Increase in the football’s monetary income is equal to increase in the amount of the money the football players and clubs earn. Football players to earn much, while paying low rates of taxes may weaken the social balances. Additionally, football players has great importance in closing the budget deficits for ensuring financial discipline. Fulfilling taxational liabilities in line with the ability to pay is a civic duty.

- Sports clubs and joint stock companies that deal with sports activities, may be exempt from corporate tax under certain conditions considering the their found purposes and economical conditions. However, despite not being a taxpayer in terms of taxation method, they may be in the position of a tax bearer. In fact, the actual burden of “accrued income tax through stoppage” remains on the sport clubs, due to the fact that sports players demand a net salary with the help of their unique declaration system. This is a financial problem. When the payments are not correctly stated in financial tables and declarations, it may lead to uncertainties, thus harmful results. And uncertainty is the main reason that shakes the confidence in taxation.

The fact that the agreements & payments between sports clubs are executed over any amount leads the taxes to be calculated and paid over salaries and similar rights provided to the Professional sports players to remain on clubs, which are exempt from tax (Başaran, 2010).

## 5. Conclusion

There are some factors that must be taken into consideration for taxation procedures of the sports players, which are:

- Taxation to be applied on the incomes of the sports players must be objective, while considering the sports player together with the spots clubs. Imposing tax on sports clubs via broadcast, field advertisement, jersey, ticket sales, combined tickets, skybox, transfer fees will be a supplementary resource for the state.

- While imposing tax on sports players, a meticulous approach is to be displayed in a manner not damaging the equality between the salary earners, excluding the sports players, and other income factors.

- Foreign-based salary incomes of the sports players must be clarified. The incomes earned by the sports players arising out of personal benefits in foreign countries are subjected to taxation in the respective country as per OECD model. While the taxation rate for sports players is 15%, it amounts to 35% for citizens.

- Sports players are to be subjected to taxation as per their incomes like other salary earners. In the taxation of sports players, amateurism – professionalism categories must be separated from each other, thus imposing tax as per the principle of earning high or low amounts. Declaration may be obligatory for Professional sports players, exceeding a certain income limit.

## 6. References

7103 Sayılı Vergi Kanunları İle Bazı Kanun Ve Kanun Hükmünde Kararnamelerdedeğişiklik Yapılması Hakkında Kanun. (2018, 03 22). Retrieved 08 22, 2018, from 22 Mart 2018 Tarihli 2. Mükerrer Resmi Gazete: <http://www.resmigazete.gov.tr/eskiler/2018/03/20180327M2-1.htm>.

Akarca, A. (2018, 04 12). *Spor kulüplerine vergi iadesi teşviği*. Retrieved 08 20, 2018, from dünya.com: <https://www.dunya.com/kose-yazisi/spor-kuluplerine-vergi-iadesi-tesvigi/411161>.

Öz, E., & Akçay, F. (2013, 09). *Futbolcuların Özelinde Sporcuların Vergilendirilmesi*. Retrieved 08 20, 2018, from Vergi Sorunları Dergisi: <http://vergisorunlari.com.tr/makale/futbolcular-ozelinde-sporcularin-vergilendirilmesi/7315>.

Başaran, M. (2010, 08 02). *Sporcular ve Teknik Adamların Vergilendirilmesi*. Retrieved 08 22, 2018, from Futbol Ekonomisi / Endüstriyel Futbol: <http://www.futbolekonomi.com/index.php/haberler-makaleler/hukuk/172-murat-baaran/565-sporcular-ve-teknik-adamlarn-vergilendirilmesi.html>.

Büyük, S. (2018, 07 11). *Türkiye’de ve dünyada sporcu gelirlerinin vergilendirilmesi*. Retrieved 08 20, 2018, from PWC Türkiye: <https://www.pwc.com.tr/tr/medya/kose-yazilari/sedat-buyuk/turkiye-de-ve-dunyada-sporcu-gelirlerininvergilendirilmesi.html>.

# **Diaspora's role in increasing of Remittances and their impact on Kosovo's economic development**

Hamdi Hoti, Rifat Hoxhan

## **Entry**

Nowadays, the diaspora's role in increasing remittances is enormous and represents direct and rapid returns for the families of migrants and the economy of the country in general.

Knowing that all Balkan countries, including Kosovo, have been faced with the emigration of the male population in particular, which keeps their families in the past.

However, with the end of the war, Kosovo did not migrate only masculine gender but the influx of family emigration began. Even today, emigration has its own negative side of the unpleasant feeling of leaving the country of birth and the positive part of the remittances in the form of budget they make for the remaining relatives in Kosovo. Therefore, Kosovo after the 1990s faced the emigration of citizens who have emigrated abroad due to the numerous political pressures on the part of the Serbian invaders, economic conditions, and the inability to engage in work of public and private institutions in the country. Emigration related to work, socio-economic and political interaction with the Kosovo diaspora have had a great impact on economic opportunities and the improvement of the well-being of Kosovo's citizens through financial means, including remittances of migrants, and travel expenses from Kosovar diaspora which have and still have an impact on society, including improving the welfare of citizens, reducing poverty, and increasing educational and healthcare opportunities, etc. Therefore, today, people migrate when their resources are lacking and are unable to meet their individual and family needs and their prospects for a better future are lacking. Therefore, based on these facts it is estimated that this is the situation of Kosovar emigrants who have left for a better life for themselves and their families.

Most remittances entering Kosovo still come through informal channels of physical behavior, by an incompetent and relative individual, or friends where the flow of remittances through informal channels requires actions to make the official channels more attractive in terms of efficiency, cost and anonymity. The use of banks by emigrant relatives is below the appropriate level regardless of the geographic spread of commercial banks over recent years in the country.

Therefore, the emigration of the population from poor countries towards rich countries has increased considerably in recent years, and with a trend of growth in the near future. This increase in international migrants in the world has caused great attention to international policy circles and has led to the return of attention to research and the impacts of migration and remittances in general. Many countries, including countries such as Kosovo, Albania and Macedonia, remittances are the most important sources of external financing alongside exports and Foreign Direct Investment FDI. Hence, remittances have a positive impact on economic growth by becoming an important source of economic and social stability. Migration is a permanent process of people's movement (Kosovo G. o., 2013-2018). Hence the constant increase in the number of immigrants has led to migration being the focus of attention in many countries of the world.

All countries are facing migration challenges, whether they are countries of origin, transit or countries of final destination. This issue is becoming even more current today, given the fact that approximately 214 million people live outside of their homeland or 3% of the total number of human beings today and that this number has suffered huge growth, especially in the last 20 years (Kosovo G. o., 2013-2018). Between 1965 and 1990, the number of immigrants has increased internationally by 45 million, an increase of 2.1% per year, while the current rate of increase is 2.9% per year. The total number of emigrants globally has increased over the last few years, about 150 million in 2000s to 214 million nowadays, which is that every 33 people today is immigrants (in 2000s, it was 35) (COMMISSION, 21.5.2013). Growth has also been felt in the Western Balkans and the Republic of Kosovo, where there was a significant increase of irregular migrants, mainly from countries such as Afghanistan, Pakistan,

Bangladesh, Algeria, Morocco, Congo, Syria, etc. According to the report, growth is mainly due to Turkey in Greece and then from Greece to Albania or Macedonia, where it continues to other countries, including the Republic of Kosovo (FRONTEX, 2013-2018). Therefore, based on the preliminary data, Kosovo has taken adequate measures with a view to more efficient management of migration as well as the reduction of negative effects arising from irregular migration.

### **What are the reasons for the emigration of the population and countries to migrate**

Kosovar emigration began to grow in the early 1990s and remains today as a growing process for the country. Emigration has become a global problem that reflected in all countries in the world. People today migrate when in their countries usually lack resources and opportunities to meet their life's needs and aspirations. The severe economic and social situation in the country is a factor among the factors that affect the number of people trying to go to other countries to grow.

Thus, the end of 2014 and the beginning of 2015 marks the increase in the number of Kosovar emigrants, where the European Union experienced a rapid increase in the number of citizens entering in territory through the Serbia-Hungary border, and then in Western European countries wide. Even today, there is still no accurate and reliable data on the number of people who left the country during that period, but based on preliminary estimates, some 50,000 Kosovo citizens who have left the country illegally (Anzeiger, 2015). Other sources provide different numbers for illegal migrants, with figures up to 100,000 people. This sudden wave of illegal migration over time shows that the country is facing serious difficulties in economic and social development.

Greater unemployment, difficult working conditions and poverty in the countries of Southeast Europe are major concerns of young people and young adults, so many citizens are seeking to emigrate. The escalation of the country's citizens in the near future poses a major threat to the development of the countries of the region. The wave of illegal emigration to Kosovo seems to have been driven by the EU's decision to ease travel policies with Serbia. Since 2012, Kosovars have been allowed to enter Belgrade with documents issued by Kosovo, with ID cards and certificates, whereas before that date travel was not allowed for the fact that Serbia does not recognize the Republic of Kosovo as an independent state. Kosovo and Serbia in recent years are conducting negotiations to resolve the remaining and unresolved issues from the 1998-1999 war. The International Organization for Migration defines illegal immigration as "crossing the borders without respecting the necessary conditions for illegal entry into a country" (Organisation).

So the reasons why people today emigrate is the lack of resources and the inability to meet their needs. In this situation, every day, Kosovar citizens are faced, who have steadily left the country in the hope of providing a better life for themselves and their families.

Although it should not be denied that emigration if it is legitimate towards a better life has its own good, because emigration is in most cases a means of interaction in the civilization of people.

### **Economic Situation Analysis in Kosovo**

Kosovo Diaspora's makes the largest share of foreign direct investment, and are willing to invest in conditions that would discourage other investors. Today it is important that diaspora investors are among the first and most visible after the conflicts and other disasters (Forum, 2007).

To understand that the citizens of Kosovo are inclined to emigrate, then we need to see which the main indicators of the economic situation and the well-being of the citizens are. Because life in Kosovo is more unfavorable compared to the standards that EU member states have.

Kosovo is considered by the most dependent countries in Europe with GDP, the growth rate per capita ranges from € 2,894, which is 11% of the EU average. During the 1990s there were many factors that negatively impacted the country's economy, such as poor economic policies, ethnic conflict, low access to trade and foreign finances, and international sanctions (Bank, 2008). Therefore, these factors led to a halving of production during the period and at 20% during the war of 98-99 (Commission, October, 2014). Therefore, Kosovo's economy suffers from low production, low international investment rates, negative trade balance, and inadequate growth rates. As far as well-being is concerned, Kosovo does not have a suitable social assistance scheme, as the current social assistance

package does not provide benefits for the unemployed, for the child, or for the benefit of children. So, compared with previous years, the number of beneficiaries of social schemes has decreased, but this does not mean that it is due to the improvement of the welfare of citizens but because of the stringent conditions that must be met to enter the social scheme.

It is reported that benefits from social assistance reach 78% of the poor and 45% of those living in the poverty line. Although the social scheme has a clear objective, it still has significant limitations, as only 23% of the poor population benefit from it. The monetary amount of social benefits is insufficient to meet the most basic needs of beneficiaries.

Based on statistical evidence, the main elements that would improve the overall living situation are orientation strategies that reflect reality, which would list the possible alternatives for creating new job opportunities, combating nepotism and corruption, improving public institutions, and improving development in the political and social sphere. Reducing poverty and improving welfare in Kosovo can not be thought out without job creation strategies, while what is seen is hopeless in the near future. The worrying situation in the labor market in Kosovo is the high unemployment rate. Kosovo's average unemployment rate is around 35.1%.

If we compare sex-related unemployment, the rate is significantly higher for women (40%) compared to men 28.1%. Kosovo has the youngest population in Europe, about 50% of the population is under the age of 25, and as a result, high unemployment among young people remains the biggest challenge. However, economic growth in Kosovo is about 2-4% recorded in transition economies during 2012 (Development). The economic growth process is accompanied by a broad spectrum of policies: development finance, infrastructure, regulatory framework, industrial policy, government interventions, etc.

### **Problems with law environment and regulation statement**

Among the main problems of diaspora investment nowadays is the lack of law enforcement and the spread of corruption to the competent persons. So, the presence of corruption in Kosovo is among the biggest problems of diaspora investment through remittances.

Even massive nepotism is considered a problem of the country's institutions, which should be addressed in the near future, then inadequate education system and health are factors that are discouraging involvement in Kosovo (Forum, 2007). The legal and regulatory framework includes general legal infrastructure (such as contracts, payments, securities, banking, etc), judicial practices, regulations or remittance contracts (Kosovo R. i.). As usual in remittances are included at least two jurisdictions: the jurisdiction of the country of origin and the destination of the emigrant. Hence, the authorities of a given country can have an impact on their country's laws. Regardless of the problems they may have, they can work with the authorities of the country concerned in order to solve that problem. Particular importance is given to anti-money laundering and terrorist financing policies. All remittance service providers should be in full compliance with these policies. Kosovo has developed a number of legal norms such as: laws and other legal acts, as well as other strategic documents needed for emigration. So far, the legal norms adopted in the country are: Law on Asylum, Law on Foreigners, Law on Border Control, Kosovo Citizenship Law, Integrated Border Management Strategy, where are filled and changed a large number of laws and other legal acts as well as several new laws, where it is worth mentioning the Law on Prevention and Combating Trafficking in Persons and the Protection of Trafficking Victims.

### **Role and Impact of Diaspora Remittances on Economic Development in Kosovo**

The diaspora of Kosovo in number is big, a diaspora's person for every fifth inhabitant living in Kosovo. Labor migration and economic relations with the diaspora of Kosovo are present, and have a great impact on the economic opportunities and standard of living in Kosovo.

Therefore, we can conclude that the level of unemployment in Kosovo is very high, although there is employment opportunities compared to the 1990s. The level of remittances will decrease considerably in the future. Reasons for falling remittances in Kosovo will be reunification of families with family members, and employment of family members in Kosovo. In focus groups, there was the

belief that remittance sending will continue in the near future at the same level or there is a feeling that continued assistance will focus on supporting family members rather than wider social support (Forum, 2007). In addition to improving welfare, emigration has had a significant impact in these areas: human development, increased remittances, participation in social and political activities, as well as support for the movement of Kosovo residents in the fields of education, healthcare, employment etc. The degree of influence depends on the factors: the socio-economic characteristics of the migrant, the degree of integration in the foreign country, and the proximity to their families in Kosovo.

*Remittances Entry for the Period, 2004-2014*

Viti	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Remitencat (në milion euro)	357	418	467.1	515.6	608.7	585.7	584.3	584.8	605.6	620.8	693.7

*Source: Central Bank of Kosovo*

Remittances continue to play an important role in private sector development, as they account for up to 67% of transfers in the sector. Revenues from remittances in 2013s amounted to 620.8 million euro, an increase of 2.51% from 2012s. In the period 2004s to 2014s, remittances increased by 94.31%. If we analyze data on remittance and FDI inflows in Kosovo, we can see that remittances are three times higher than foreign direct investment (FDI) in Kosovo (UNDP, 2014).

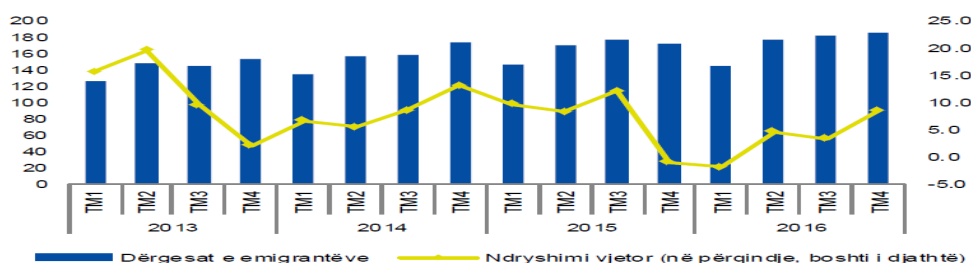
Regarding remittances revenues during 2013s, according to countries, we see that the highest incomes are from Germany (34%) and Switzerland (23%), this % corresponds to the largest concentration of diaspora in these two countries. Remittances received in Kosovo represent the largest category within the secondary income account. The increase of the current and capital account deficit is also due to the decrease in the positive balance of the primary income account, while the positive balance of services and the secondary income account increased.

During 2016, the current and capital account deficit amounted to 534.6 million euro, compared to the deficit of 471.4 million euro (about 8.9% of GDP), an annual increase of 13.4%. Remittances received in Kosovo, which also represent the largest category within the secondary income account, amounted to 691.0 million euro, representing an annual growth of 3.8%.

Within the financial account, therefore, FDI received in Kosovo was characterized by a decrease in value of 215.9 million euros in 2016, from the value of 308.8 million euro as received in 2015s. In 2016s, the financial system was characterized by increased activity, as a result of the marked increase in banking activity and the pension sector. Remittances received in Kosovo represent the largest category within the secondary income account, amounting to 691.0 million euro, representing an annual growth of 3.8% (Kosovo C. B., June, 2017).

Remittances received in Kosovo mainly come from Germany and Switzerland, countries from which 37.1% and 22.6% of total remittances received in Kosovo are sent. A considerable part of the remittances was also received by the US, exactly 6.8% of total remittances received in Kosovo.

Remittance in milion euro (Kosovo C. B., June, 2017)



Sources: Central Bank of the Republik of Kosovo

### **Remittances in Kosovo from the perspective of policy making.**

International low value payments have the same characteristics as domestic small value payments. However, international remittances can be expensive in proportion to the amount of remittances, which in most cases are sent in small amounts. Emigrants may not be easily accessible to financial

services as a result of general knowledge (financial education), and if they do not speak the language of their country of residence, or even lack of necessary documents.

Financial difficulty is also the financial education of emigrants in the country of admission, relatively underdeveloped financial infrastructure, which can make it difficult for recipients to receive remittances from immigrants. Some markets are often considered as lacking in competition or have regulatory barriers to the delivery of remittance services.

### **What are the macroeconomic projections in the Republic of Kosovo for 2017?**

CBK projections for 2017 suggest that Kosovo's economy will be characterized by a real growth of 3.7%. This growth is expected to be generated by domestic demand, while net exports are expected to have the lowest negative impact on GDP.

Consumption as a major component of domestic demand is expected to record a 2.1% real growth, based on expectations that private consumption will grow by 2.4% and public consumption by 0.6% (Kosovo C. B., June, 2017). Factors affecting the growth of private consumption, among others, are: increased remittances and credit growth.

Household loans, which have increased significantly in recent years (14.7% in 2016 and 9.3% in 2015), are expected to continue the growth trend in 2017 (Kosovo C. B., June, 2017). Investments in 2017 are expected to mark a real increase of 6.8%, based on projections for significant public investment growth of 16.9% but also private investments 3.3%.

The growth of the overall investment position is expected to contribute to the growth of FDI, which in the previous year marked a significant decline (Kosovo C. B., June, 2017).

## **Conclusion and recommendation**

### **Conclusion**

Today, emigration has an important role in daily life in Kosovo in the financial aspect as a whole, as it can be seen in the paper that although most emigrants have migrated due to the difficult economic situation, high unemployment, and ever-increasing demands for life well where these are the main factors that have fueled the rise of immigration in the post-war period in the country. As a result of these actions, today we have a large diaspora, which in all historical stages played an important role in the development and progress of the country.

So today, Kosovo Diaspora is contributing almost to all economic activity through: human capacity development. Because remittances are being used as a security tool for local citizens, especially those who are unemployed and live below the poverty line.

Therefore, research is showing that emigration will continue in the future because Kosovo has a serious economic situation in relation to its neighbors, so today more than ever it is necessary to develop strategies for strategic policy making and taking action which will ensure the strengthening of the most practical and fair linkage and exploitation of the Diaspora potential, which certainly needs to be a priority of special importance for the Kosovo government. Therefore, the Government of Kosovo should try to prevent the illegal migration of Kosovo citizens to the EU by taking rapid steps to improve the overall situation in Kosovo, in particular political uncertainties, economic instability, social upheavals, poverty, corruption, nepotism, etc.

### **Recommendation**

Nowadays emigration and remittances seek urgent intervention from the state of Kosovo and the countries where immigrants live. The interventions include: information, drafting of fair economic policies that enhance the country's economic development and employment of immigrant citizens, building sound government policies to address the problems for immigrants and their families living in Kosovo. Urgent building of information and awareness programs for public administration employees, especially in countries with large numbers of immigrants.

Therefore, the decision-making structures in Kosovo, the state of Kosovo at both levels of the central and local state, need to build a system that collects, processes and reports periodically



information on issues related to migration. So, nowadays immigration is a response to the lack of opportunities for a better life in Kosovo, development of policies and social services, health insurance, job security etc.

### Bibliography

- Anzeiger, T. (2015). *Der Westen hat einen Pakt mit Kriminellen Politikern geschlossen*. Retrieved from <http://www.tagesanzeiger.ch/ausland/europa/Der-Westen-hat-einen-Pakt-mit-kriminellen-Politikern-geschlossen/story/21671043> x
- Bank, W. (2008). [http://web.worldbank.org/archive/website01352/WEB/0\\_PAG-2.HTM](http://web.worldbank.org/archive/website01352/WEB/0_PAG-2.HTM). Prishtine, Kosove: World Bank. Retrieved from [http://web.worldbank.org/archive/website01352/WEB/0\\_PAG-2.HTM](http://web.worldbank.org/archive/website01352/WEB/0_PAG-2.HTM)
- COMMISSION, E. ( 21.5.2013 ). *COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS* . Brussels: EUROPEAN COMMISSION .
- Commission, E. (october, 2014). *Kosovo progress report*. Brussels: European commission.
- Development, E. B. (n.d.). *Research*.
- Forum. (2007). *Diaspora and political immigration*. In I. R. Fondacioni i Kosovës për Shoqëri Civile, *Diaspora and policies of immigrations*. Prishtine: Riinvest Institute.
- FRONTEX. (2013-2018 ). *State strategy for immigration and operation plan* [http://www.frontex.europa.eu/assets/Publications/Risk\\_Analysis/WB\\_ARA\\_2012.pdf](http://www.frontex.europa.eu/assets/Publications/Risk_Analysis/WB_ARA_2012.pdf). FRONTEX.
- Kosovo, C. B. (June, 2017). *Year report of 2016*. Prishtine: Central Bank of Kosovo.
- Kosovo, G. o. (2013-2018). *The State Strategy for Migration and the Action Plan 2013-2018*. In G. o. Kosovo, *The State Strategy for Migration and the Action Plan 2013-2018*. Prishtine: Government of Republic of Kosovo.
- Kosovo, R. i. (n.d.). *Remittances in Kosovo, Analyze over manner of sending of remittances in Kosovo*. Organisation, I. I. (n.d.).
- UNDP. (2014). *MIGRATION AS A FORCE FOR DEVELOPMENT*. Prishtine, Kosove: Kosovo Human Development Report.
- ✓ Sekaran, U. 2003 *Research methods for business: A skill building approach*, New Jersey: John Wiley & Sons,
  - ✓ Statistical Agency of Kosovo (2017): *Economic Statisti*;
  - ✓ European Commission (2017): *EU Candidate and Pre-Accession Countries; Economic Quarterly 3, Economic and Financial Affairs*;
  - ✓ European Commission 2014 *Instrument for pre accession assistance (IPA II) 2014-2020*; [http://ec.europa.eu/enlargement/pdf/kosovo/ipa/2015/09\\_ipa\\_2014\\_migration\\_asylum\\_andfight\\_against\\_trafficking\\_with\\_human\\_beings\\_2014](http://ec.europa.eu/enlargement/pdf/kosovo/ipa/2015/09_ipa_2014_migration_asylum_andfight_against_trafficking_with_human_beings_2014),
  - ✓ European Commission (2017): *Eurostat Database*;
  - ✓ <https://www.tagesanzeiger.ch/ausland/europa/Der-Westen-hat-einen-Pakt-mit-kriminellen-Politikern-geschlossen/story/21671043>,
  - ✓ The Guardian(2015) <https://www.theguardian.com/world/2015/feb/17/kosovans-risk-perils-of-roads-forests-and-criminals-in-chase-for-better-life-in-eu>,
  - ✓ *Diaspora and immigration • FORUM 2015, M.TAVANXHIU ,REMITTANCES: DEFINITIVE FACTORS AND THE IMPORTANCE OF THEIR – ALBANIAN CASE*, Tiranë- februar, 2016,
  - ✓ European Central Bank (2017): *Monthly Bulletin*, European Central Bank, Frankfurt.
  - ✓ Ask, *Study remittances in Kosovo*, October 2013, <http://opendata.rks-gov.net/dataset/ff0255b9-f406-4d02-bf00-065bc0fb3c14/resource/0a9ba6fa-ca8b-459a-8481-cfee6defda44/download/studimi-mbi-remitencat-ne-kosove-2013.pdf>,
  - ✓ Central Bank of Kosovo 2017,
  - International Monetary Fund (2017): *World Economic Outlook, WOE Database*

# Economic Relations of Turkey and European Union within the Context of Revision of Customs Union

Ceran Arslan olcay

## 1.Introduction

Customs Union (CU) between European Union (EU) and Turkey had its origins in 1963 with the Ankara agreement, establishing an association between the European Economic Community and Turkey. With this agreement, economic and trade relations between partners have been promoted, at the same time, development of Turkish economy and improvement of living conditions should be taken into consideration. Moreover, a road map for the establishment of customs union progressively had been determined.

Final stage of this process is the entry of the customs union into force dated in 1995 according to the decision no. 1/95. In the meantime until 1995, there were several financial aids for Turkey in the scope of EU-Turkey financial cooperation. After 1995, with the formation of CU, a new era has started in Turkey-EU Relationship. It is followed by being an EU candidate in 1999 and beginning of accession period in 2006.

CU is basically, the free movement of goods in a group of countries which charges a common tariff to the third countries. However products in the scope of the customs union are limited but subject to preferential trade. Accordingly, CU between EU and Turkey covers only industrial products originating in Turkey, including processed agricultural products and coal and steel products. In the context of decision 1/95; within customs union, common trade policy, preferential trade agreements with third countries, legislation on intellectual and industrial rights and technical barriers on industrial goods have been harmonized.

## 2. Situation Analyses and Methodology

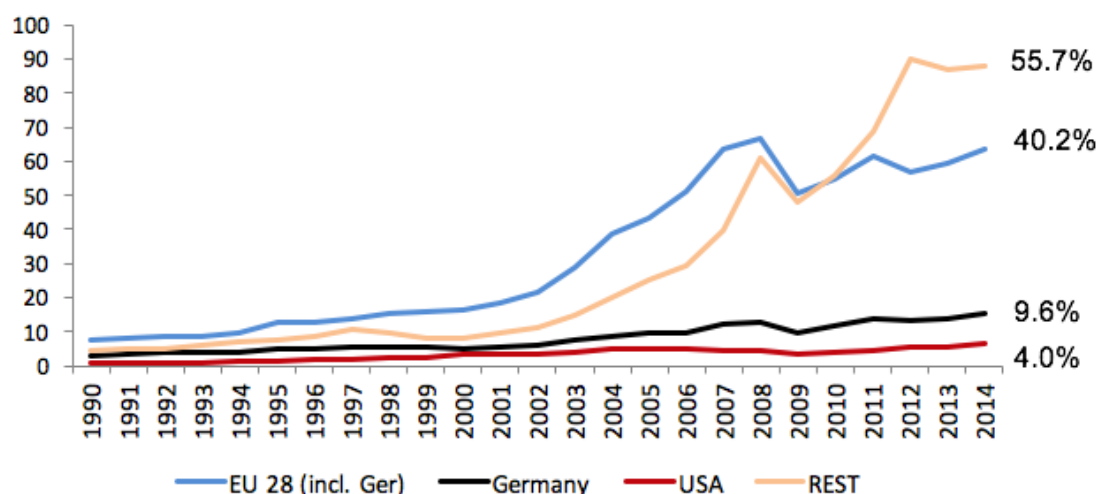
### *Turkey-EU commercial relations*

Turkey-EU CU was the first example of the functioning CU with a non-member state<sup>11</sup> and EU still rank number one among the Turkey's trade partners in terms of trade volume. As you can see in Graphs 1, 2 below, since the establishment of CU in 1996, bilateral trade between EU and Turkey has increased more than fourfold. And as for EU, Turkey is the 5<sup>th</sup> in terms of export and 7<sup>th</sup> in terms of import among its partners.

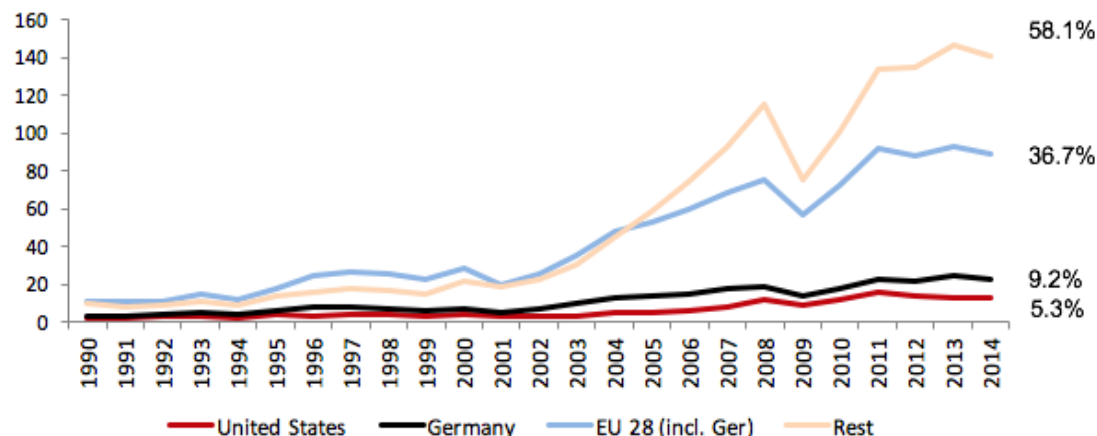
In 2016 Turkey's export to EU countries were 66,7 billion euro, approximately 47 % of total and import from EU countries was 78 billion euro, 39 % of total. Basic export items are machinery and vehicle equipments and manufacture goods.

---

<sup>11</sup> Evaluation of the EU-Turkey Customs Union (2014). *Report No:85830-TR*. World Bank.s.i.

**Graph1.Export in Turkey**

OECD data, IFO Center for International Economics, Research Center.

**Graph 2. Import in Turkey**

OECD data, IFO Center for International Economics, Research Center.

As mentioned above CU between Turkey and European Union EU is an important milestone of the Turkey's European integration process as CU has never been perceived as a final target rather an important step for deeper ties. Assessments are discussed in this study through the possible expectations and impacts of revision and deepening of EU-Turkey economic relations.

### 3.Findings & Revision

The discussions over the Turkey-EU Customs Union has always been on the agenda and impacts on the Turkish trade have been debated. Besides static affects of CU,dynamic affects should also be taken into consideration.

Inclusion to production chains of Europe, increase in competitiveness and efficiency, easing the harmonization of the production standards, consumer rights, intellectual rights with EU, are the most important ones. And CU also create opportunity for the increase in the international investments. As an example, about 75% of the foreign investment between 2002-2016 was from EU countries.

New parameters of EU foreign economic relations, especially trade patterns have been re-designed through the changes in global Dynamics. Development of information, communication and transformation ease the entegration processes thus accelerated the globalization. Especially the rising power of East-Asian emerging markets led by China, to unsettle the global power of EU in terms of industrial competiton and terms of trade started.

New generation Free Trade Areas(FTA)'s started to be the main actors of the global trade. More comprehensive, deep and tailor-made trade relations were built between partners. In this direction, EU as a global power, also started build relations beyond traditional boundries.

EU's changing nature in trade relations through the new global dynamics of the commercial policy, also accompanied the necessity of revision of the Turkey-EU Customs Union as these developments inevitably started to affect Turkey's trade relations with EU and third countries. A 20 year-old agreement has never been perceived as a final target but rather as an important step for deeper ties. CU being implemented between EU and Turkey has started become narrower and less equipped in scope because it was designed as a transitional agreement rather than a technically equipped agreement for current challenges. Asymmetric relation between EU and Turkey, stem from the origins of the agreement, is the uppermost reason of revision process. Asymmetry is argued because it affects Turkey's terms of trade thus welfare directly. Turkish firms cannot have reciprocal access to third countries automatically which have FTAs with EU but these countries can enter freely. Moreover, EU's trade partners that had built a FTA with EU may refuse to conclude a trade partnership with Turkey.<sup>12</sup> Also the due to the design of the agreement, Turkey can not participate in decision-making processes. Because of this asymmetry, Turkish welfare is affected negatively. Furthermore, risk of non-compliance increases.

Also, the potential impact of Transatlantic Trade and Investment Partnership (TTIP) on the Turkish economy given its long-term relation with EU, is also a driving for revision of CU.<sup>13</sup> This agreement has provided a trade and investment partnership for EU and US. EU is still negotiating with US for the biggest export market<sup>14</sup>, approximatey 1/3 of the world trade. Like many countries, Turkey also wants to protect itself from the negative impacts of this partnership. As Turkey's integration with US market is very limited, deals and regulations under the CU has become more important. Currently, CU is narrower compared to FTAs, as it does not involve agriculture, services and public procurement. Turkey should strengthen its position by revising and deepening CU. Hence, following the changes in condititons, a need to widen and revise the the scope of the Turkey- EU CU agreement has arisen. In this framework; on 12 May 2015, it was announced that Turkey-EU CU decided to be revised to expand the scope of the 20 year old agreement.<sup>15</sup> Need for revision arised not only in the light of the global challenges but also in the light of being involved in decision making processes and asymmetric relation between EU and Turkey in the context of CU.

According to the facts mentioned above, the main target of this revision process shall be the wider trade integration which will cover the agricultural goods and services which would potentially bring welfare. Especially, agriculture is an important sector for Turkey as it accounts for 10% of Turkey's GDP and ¼ of employment. Also participating in decision-making processes effectively is very important in the road map of revision.

---

<sup>12</sup> Sait Akman (2017). (*Revision of Customs Union Between Turkey-EU in the Context of Global Dynamics*). In Proceedings of the Revision of Turkey-EU Customs Union Within Context of Diversified Models of EU'S External Relations(publish:ISBN:978-605-136-337-0). Ankara Üniversitesi ATAUM, 2015, Ankara. s.89

<sup>13</sup> Canan Balkır (2017). (*Transatlantik Trade and Investment Partnership*. In Proceedings of the Revision of Turkey-EU Customs Union Within Context of Diversified Models of EU'S External Relations). (publish:ISBN:978-605-136-337-0). Ankara Üniversitesi ATAUM, 2015, Ankara.s.60

<sup>14</sup> European Commission. Transatlantic Trade and Investment Partnership (TTIP).Retrieved from. <http://ec.europa.eu/trade/policy/in-focus/ttip/about-ttip/questions-and-answers/>.

<sup>15</sup> Çiğdem Nas,Emre Ataç, Ahmet Ceran...Çisel İleri (2017).İKV Report on Turkey-EU Relations: Keeping Together in the Face of Multiple Challenges (Publication no:288).İstanbul:İKV.s:40

#### 4. Discussion

Through the establishment of new framework for Turkey-EU trade relations, impact assessments were made both by Turkey and EU in order make

predictions for the future scenarios. The impact assessments made both by Turkey and EU, reached similar results at the end.

Alternative scenarios proposed can be resulted in three main assumptions.

First one is the status quo, which means CU between EU and Turkey remaining unchanged. This choice absolutely lowers GDP for Turkey while EU increases its welfare, as it is concluding new FTA's. Second scenario is the replacement of CU with a FTA. As it can be seen in table 1 and graph 3, analysis show that, status-quo result in a decline welfare of Turkey if situation downgrades CU to FTA.

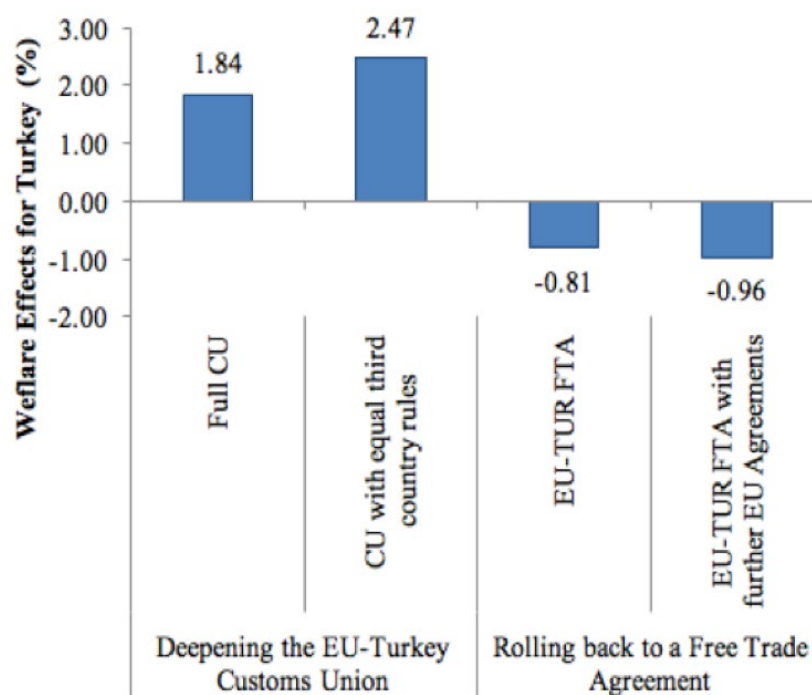
Third scenario is the deepening and revising the CU, which have been argued. While keeping the existing ones unchanged, trade in agricultural goods, services and public procurement shall be liberalised under a FTA. According to the results of impacts assessments made both by EU and Turkey, as seen in graphs below, Turkey's GDP will increase considerably.<sup>16</sup>

**Table 3-4. Impact Assessments of Turkish Ministry of Economics**

%	GDP		Export		Import	
	TURKE		TURKE		TURKE	
	Y	EU	Y	EU	Y	EU
Revision of CU	1,44	0,0	3,2	0,05	3,02	0,1
Conversion of CU to new generation FTA	0,26	-	0,94	0,004	0,06	0,03
			WORLD		WORLD	
			EU	D	EU	D
Revision of CU and building new FTA's	1,9		24,43	15,16	23,92	13,24
Conversion of CU with current situation	-0,4		-16,02	-4,15	-11,25	-3,62

Turkish Ministry of economics (2017). *Gümrük Birliği Güncellenmesi Etki Analizi Basın Bildirisi*. Retrieved from. [https://www.ekonomi.gov.tr/portal/faces/blog/newsDetail?news\\_id=EK-235432&\\_afLoop=19146857317465663&\\_afWindowMode=0&\\_afWindowId=null&\\_adf.ctrl-state=5mbei9bv\\_52#!%40%40%3F\\_afWindowId%3Dnull%26\\_afLoop%3D19146857317465663%26news\\_id%3DEK-235432%26\\_afWindowMode%3D0%26\\_adf.ctrl-state%3D5mbei9bv\\_56](https://www.ekonomi.gov.tr/portal/faces/blog/newsDetail?news_id=EK-235432&_afLoop=19146857317465663&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=5mbei9bv_52#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D19146857317465663%26news_id%3DEK-235432%26_afWindowMode%3D0%26_adf.ctrl-state%3D5mbei9bv_56)

<sup>16</sup> Sait Akman (2017). (Revision of Customs Union Between Turkey-EU in the Context of Global Dynamics).s:92-94.

**Graph 3. Impact Assessments of Turkish Ministry of Economics**

Evaluation of the EU-Turkey Customs Union (2014). *Report No:85830-TR*. World Bank.s.65.

### 5. Conclusion

As a result, all assessments show that revision and modernization of CU is necessary and will bring economic gains, especially for Turkish trade in new global era. In other words, upgrading CU will revise the agreement according to the current expectations. Firstly, reducing asymmetries by including Turkey in decision making procedures and redesign the relations with respect to FTAs with third countries is inevitable. Also framework of the agreement should be broadened into all aspects of trade such as trade in agricultural goods, services and public procurement.

### 6. References

- Akman, Sait., (2017). *Revision of Customs Union Between Turkey-EU in the Context of Global Dynamics*. In *Proceedings of the Revision of Turkey-EU Customs Union Within Context of Diversified Models of EU'S External Relations*(publish:ISBN:978-605-136-337-0). Ankara Üniversitesi ATAUM, 2015, Ankara.
- Balkır, Canan., (2017). *Transatlantik Trade and Investment Partnership*. In *Proceedings of the Revision of Turkey-EU Customs Union Within Context of Diversified Models of EU'S External Relations*(publish:ISBN:978-605-136-337-0). Ankara Üniversitesi ATAUM, 2015, Ankara.
- Nas, Ç., Ataç, E. Ceran, A.,... İleri, Ç. (2017). İKV Report on Turkey-EU Relations: Keeping Together in the Face of Multiple Challenges (Publication no:288). İstanbul: İKV.s:40
- Evaluation of the EU-Turkey Customs Union (2014). *Report No:85830-TR*. World Bank.s.65.
- European Commission. *Transatlantic Trade and Investment Partnership (TTIP)*. Retrieved from. <http://ec.europa.eu/trade/policy/in-focus/ttip/about-ttip/questions-and-answers/>.
- Turkish Ministry of economics (2017). *Gümrük Birliği Güncellenmesi Etki Analizi Basın Bildirisi*. Retrieved from. [https://www.ekonomi.gov.tr/portal/faces/blog/newsDetail?news\\_id=EK-235432&\\_afLoop=19146857317465663&\\_afWindowMode=0&\\_afWindowId=null&\\_adf.ctrl-state=5mbei9bvU\\_52#!%40%40%3F\\_afWindowId%3Dnull%26\\_afLoop%3D19146857317465663%26news\\_id%3DEK-235432%26\\_afWindowMode%3D0%26\\_adf.ctrl-state%3D5mbei9bvU\\_56](https://www.ekonomi.gov.tr/portal/faces/blog/newsDetail?news_id=EK-235432&_afLoop=19146857317465663&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=5mbei9bvU_52#!%40%40%3F_afWindowId%3Dnull%26_afLoop%3D19146857317465663%26news_id%3DEK-235432%26_afWindowMode%3D0%26_adf.ctrl-state%3D5mbei9bvU_56)



# **The Ideology of Muammar Al-Qaddafi and His Theory of New State Formation in Libya According to the Green Book**

Ali Bilgenoğlu

## **1. Introduction**

A significant part of the world's political geography was transformed by "anticolonial politics" and "post-colonial nationalism" during the 20<sup>th</sup> century (Heywood, 2013, p. 122). Even though anti-colonial politics was born between two world wars, it reached its greatest power of effect during the period after 1945 through movements for independence which began in colonies of old European powers, especially that of English and French, and caused disorganisation of old colonial empires (Heywood, 2011, p. 194). Post-colonial nationalism is a product of this process in historical context as a non-Western and anti-Western nationalism. As a part of the same process, the 20<sup>th</sup> century Middle East politics has a semantic world where impaired political, social and economic structures having been inherited from the colonization history of the 19<sup>th</sup> century and also a protest political rhetoric was developed against the West (Tibi, 1998, pp. 49-63). Above all, Arab Nationalism, which took itself to the peak on a political plane in the first half of the 20<sup>th</sup> century, is one of the most significant manifestations of this aforementioned case. In this sense, Arab Nationalism, which turned out to be the symbol of a political and sociological resistance developed against the Western World and its imperialistic political background, formed one of the most important political locations of the 20th century in the Middle East geography from Maghreb to Mashriq (Oran, 1997, pp. 76-78).

The new world order established following Yalta and Potsdam Conferences held after the Second World War, and Arab Nationalist ideology, as an important leg of Islamist political idea in the Cold War Period following this new world order, represented anti-colonial resistance mentioned in terms of content on Middle Eastern politics in political domains and included independentist political rhetoric (Nasr, 1999, pp. 549-550). Besides, it was influenced by the soul of that time within ideological evolutionary process and joined a comment of socialism specific to the region and Arab communities in its ideological formation. Likewise, modern Islamist political thought was recognized and presented as an ideology justifying socio-economic reform policies of the state firstly in Egypt then in other countries. The comment of socialism specific to Arab communities is, no doubt, one of the essential components of ideological transformation process mentioned hereby. (Inayet, 1988, p. 258).

Arab Nationalism, which aimed to mobilize Arab communities towards the target of political independence during the period of decolonization when old colonies all around the world had gained independence since early 1950s, which put them in nation state formation period (Emerson, 1965; Chatterjee, 1996), fortified the power of its diplomacy and rhetoric at a social level over charismatic leaders. In this sense, Gamal Abdel Nasser, the leader of Free Officers Movement composed of armed forces in Egypt in early 1950s, appears to be the first and greatest charismatic leader of Arab Nationalism in the 20<sup>th</sup> century. Nasserism combining Arab Nationalism and anti-colonial political rhetoric which was against Great Britain, the colonial power on Egypt, with a unique comment of socialism that mostly refers to the rest of the Middle East (Güler, 2004, pp. 251-283) has initially served as a prototype and then as a model for the period following Arab Nationalism (Davışa, 2004, pp. 129-130). From this point of view, a similar rhetoric and political appearance were experienced in Libya under the charismatic leadership of Muammar al-Qaddafi following Egypt, one of the most important countries in terms of both history and culture of Middle East and also one of the most experienced one in the context of state administration.

## **2. Qaddafi Regime and the Green Book**

Muammar Abu Minyar al-Qaddafi, who ended monarchical regime in Libya through 1969 Free Officers Coup and took the country to a new political and ideological construction in the second half of the 20<sup>th</sup>



century, was born in Sirte as a member of a poor family in 1942. He got into Benghazi Military University Academy as a graduate of Faculty of Law in Libya University in 1963 upon completion of his primary and elementary education in Sirte and Misrata. Qaddafi, having been trained as a military specialist in Britain for a while, appeared as one of the founders of Free Officers Movement, organized inside the Libyan army as an opponent of the regime in 1969. Monarchy of King Idris was overthrown by this coup organized by him and young junior military officers, most of whom were his classmates (Vandewalle, 2006, pp. 24-30) and republic, instead, was proclaimed on 1<sup>st</sup> September 1969 with the slogan of “liberty, socialism and unity” by Libyan Revolutionary Command Council (Ataöv, 1975, p. 107). Liberty primarily refers to “ending the monarchy”, Socialism means “establishment of social justice” and Unity refers to “the idealism of the unity of the Arabs” (Mitchell, 1982, pp. 319-320).

Libyan Revolutionary Command Council seizing the government in Libya initially prepared a new constitution. This constitution took place Revolution Command Council-RCC at the top of the pyramid of Libyan state organization. The Council forgave political prisoners consisting of old regime opponents, and reassigned former Prime Minister Mahmud Sulayman al-Maghribi, one the most significant figures and known to be against monarchy, to found a new government. In addition, Muammar al-Qaddafi was appointed as Commander-in-Chief of Libyan army on 8<sup>th</sup> September 1969 by the Council (Vandewalle, 2006, p. 81).

Monarchy supporters in the bureaucracy and army were eliminated within the first several years following the revolution and new Libyan regime announced itself as “Great Socialist People’s Libyan Arab Jamahiriya” in 1976 after this progress. Instead of a government and a cabinet system, a new bureaucratic mechanism was created in the name of “General People’s Congress” under the regime of Jamahiriya, which means “State of the Masses”, content and notion of which were determined by Qaddafi himself. Both new Libyan Constitution and “Government of the Public” were announced in the General People’s Congress assembled by Qaddafi in 1977 (Hajjar, 1980, p. 186).

Thoughts of socialism and unity taking place among the slogans of Free Officers Movement proved themselves both ideologically/theoretically and practically at many points during Qaddafi’s regime in Libya and also in the success of the movement. Libya, a member of Organization of the Islamic Conference in 1969 right after the Revolution, became a member of The Council of Arab Economic Unity in 1975. Qaddafi, undertaking the leadership of Pan-Arabism in the Middle Eastern politics, especially after Nasser, made attempts of consolidation based on Arab unity and socialism with such countries as Syria, Tunisia and Sudan; however, all these attempts failed at the end (Vandewalle, 2006, p. 86).

Besides the attempts for unity outside the country, Qaddafi avoided consciously from political choices such as “elimination of Islamist groups” holding the potential to threaten his power in Libya. Especially since mid-70’s, when his power started to become stronger, Qaddafi, preferred to consolidate Arab nationalism and socialism politically with an Islamist point of view. Compared to the previous Sanusi-period’s Sufism ideology and order, this Islamist approach with a more liberal content was functionalized by Qaddafi so as to serve both domestic legitimacy of his power and socialist order intended to be brought to Libya (Layachi, 2013, pp. 355-356).

“Green Book”, grounding Jamahiriya model as a political system and “Universal Third Theory” formulized by Qaddafi himself, is the primary resource which allows to observe traces of critical look of the new state formation of Qaddafi’s Libya into Western World in frame of Cold War conditions as of 1970s, its political and economic opinions and suggestion for a unionist/nationalist and socialist model to the Middle East (Hinnebusch, 1984, p. 165; Obeidi, 2008, p.107; Seddon, 2004, pp. 559-560). The Green Book, taken as a model by Qaddafi because it is a book of doctrine, and resembling such books of ideology as Gamal Abdul Nasser’s idealized Philosophy of Revolution or Mao’s “Red Book”, defend, in the most general sense, a political approach of Third Worldism, expected to be an alternative to Capitalism and Marxism (Esposito, 1999, p. 657). Inside the cycle of 1970s which refers to the second half of Cold War, the Green Book and Universal Third Theory invite the old colonist countries which are underdeveloped and do not take place in Western and Eastern camps in the world to merge. In this sense, this theory, which aims to convey Third World politics which Non-Aligned Movement initiated by 1955 Bandung Conference defended to second half of 70s, protects independency and objectivity of

the nations and, suggests a third world model where nations can live together in peace (Heywood, 2011, p. 195).

In the Green Book published in three parts by Muammar al-Qaddafi, "people's authority against existing democracy practice" is mentioned in the first part while "socialist economic order for solution of financial problems" is mentioned in the second part, and "construction of social order" is mentioned in the third part in scope of Universal Third Theory. The first part of the Green Book will take place in the centre of this study since it is directly related with new state formation anticipated during Qaddafi period in Libya.

### 3. The Basic Principles of New State Formation in Libya According to the Green Book

In the first chapter titled The Instrument of Government, published in 1976, of the Green Book, Muammar al-Qaddafi criticizes, in the most general sense, theory and practice of democracy suggested as Western-European-centred and accepted in general (Vandewalle, 2006, p. 102). Likewise, for Qaddafi, *all political systems in the world today are a product of the struggle for power between alternative instruments of government. This struggle may be peaceful or armed, as is evidence among classes, sects, tribes, parties or individuals. The outcome is always the victory of a particular governing structure and the defeat of the people* (Political struggle that results in the victory of a candidate with, for example, 51 percent of the votes leads to a dictatorial governing body in the guise of a false democracy, since 49 percent of the electorate is ruled by an instrument of government they did not vote for, but which has been imposed upon them. Such is dictatorship." (Qaddafi, pp. 4-5).

To Qaddafi, one of the most important instruments of false democracies which he believed they are essentially dictatorial regimes is parliaments which he claimed they deceive the people. Qaddafi, stating the principal meaning of democracy is sovereignty of the people, claimed the presence of the people within the system is removed since modern democracies leave the sovereignty the people must be holding to the representatives who are so-called to represent the people: *"The parliament takes over the people's sovereignty and acts on their behalf. In this regime people are seduced into standing in long and silent queues to cast their ballots which makes representation such a fraud"* (Qaddafi, pp. 4-5). This situation fortifies the position of the power before the people, which is the greatest gaining for the regime, then *"parliaments have been a legal barrier between the people and the exercise of the authority"* (Qaddafi, p. 7). Jamahiriya replaces false democracies, which are examples of dictatorship, by locating people in the centre of the system and allowing people's sovereignty to be used directly by the people themselves instead of representation of their representatives and *"after the successful establishment of the age of the republics and the beginning of the era of Jamahiriya, it is unthinkable that democracy should mean the electing of only a few representatives to act on behalf of great masses."* (Qaddafi, p. 12).

Even though social classes defined by Qaddafi *"like parties, sects or tribes, are groups of people within people who share the common interests"* appear due to social reasons, they act in a political way in order to realize the group's opinions and interests (Qaddafi, p. 21). This situation results in a political class regime and *if a class, a party, a tribe or a sect dominates a society, then the dominant system becomes the dictatorship* (Qaddafi, p. 22). However, *"Under genuine democracy, there can be no justification for any one class to subdue other classes for its interests. Similarly, no party, tribe or sect can crush others for their own interests. To allow such action abandons the logic of democracy and justifies resort to the use of force"* (Qaddafi, p. 22).

For Qaddafi, modern democracies, which are nothing more than struggle of power and benefit between instruments of power, have instrumentalized election systems, parties, parliaments and political class regimes in order to hold the authority before the people. Thus, genuine dictatorial regimes rose in the disguise of democracy. Therefore, *"all attempts at unifying the material base of a society in order to solve the problem of government, or at putting an end to the struggle in favor of a party, class, sect or tribe have failed. All endeavours aimed at appeasing the masses through the election of representatives or through parliaments have equally failed. To continue such practices would be a waste of time and a mockery of the people"* (Qaddafi, pp. 26-27).

As Qaddafi's criticism on theory and practice of Western/European-centred democracy above goes, what is supposed to be done during "Jamahiriya age" is to suggest a political regime which essentially

allows people's sovereignty as a model. This is a concrete experiment of democracy brought about by the Third World Theory; hence, *"The problem of democracy in the World will finally be solved"* (Qaddafi, p. 33).

The most vital two mechanisms that really allow people's sovereignty on the system in this concrete experiment of democracy and which are shortly defined as "People's Sovereignty" or "People's Democracy" in the Green Book are named as "Basic People's Congresses" and "Basic People's Committees" (Vandewalle, 2006, p. 103). Accordingly, the society is initially divided into people's congresses, and each congress determines their own administration staff on their own. Administrative staff of each people's congress consists of regional congresses at an upper mechanism. Regional congresses select People's Committees that replace government/cabinet system. Thanks to the political and administrative regime that is organized from bottom to the up in this way, *"all public institutions are run by People's Committees"* (Qaddafi, p. 34).

People's Congresses hold the right to assign and then supervise the policies required to be monitored by People's Committees. This also allows People's Committees to feel politically liable to People's Congresses that have selected them. *Thus, both the administration and the supervision become the people's* (Qaddafi, p. 34).

Employees, farmers, students, merchants, civil servants and craftsmen, in short, each citizen and group will be naturally a member of Public Congresses. These persons can also be selected as a member of People's Committees in addition to their membership in People's Congresses and they can be entitled to hold the identity of an administrator (Qaddafi, p. 35).

The last greatest administrative decision-making organ of the system whose two significant legs are built as People's Congresses and People's Committees by Qaddafi in the Green Book is General People's Congress (Vandewalle, 2006, p. 103). Its members will consist of people from People's Congresses and People's Committees as well as people selected from unions and vocational institutions, and gather once a year. Topics discussed by the administrators of People's Committees and People's Congresses and the decisions made in these meetings will be submitted to General People's Congress and final decision will be made. Final decisions will be transferred and put into practice on an up-bottom procedure from People's Committees to People's Congresses, unions and vocational unis. (Qaddafi, pp. 35-36).

Claiming that genuine democracy practice was finally reached thanks to Third World Theory and Jamahiriya System, Qaddafi emphasized the problem arising from the instrument of government was solved by itself, which resulted in elimination of dictatorship instruments, the most fundamental problem. Inasmuch as, *"the people become the instrument of government"* and gather the authority to govern under their own responsibility (Qaddafi, p. 36).

Constructing the foundation of People's Democracy with a system of congresses and committees in the context of political and administrative mechanism, Qaddafi desired to fortify legal infrastructure of the new system with an alternative law system differing from de facto viewpoint of law all around the world. Qaddafi, opposing against existing practices of democracy in the world, approached theory and practice of law critically from the same window. Qaddafi, stating that *"The abrogation of natural laws from human societies and their replacement by conventional laws is the fundamental danger that threatens freedom"*, defended the opinion which is *"any ruling system must be made subservient to natural laws, not the reverse"* (Qaddafi, pp. 40-41).

Believing the fundamental law is born from and fed with a society's religion/belief and traditions, Qaddafi stated that it is a vain search to impose codes/sharia law on the society rather than religion and tradition. For Qaddafi referring to the properties of natural law over the fact that sharia law cannot be enforced with amendment or reconciliation, sharia law is identified as *"The importance of fundamental law lies in being decisive criterion in light of which truth and falsehood, right or wrong, and individual rights and duties can be judge"*. Therefore, the fact that the instrument of government should be subject to sharia law of the society is an idealized situation mentioned in the Green Book (Qaddafi, p. 41). Likewise, *"The law of society is an eternal human heritage that does not belong only to the living. Therefore, drafting a constitution or conducting a plebiscite on it is a mockery"* (Qaddafi, p. 44).

#### 4. Conclusion

Free Officers Coup initiated a new age in many terms in Libya in 1969. The regime changed in the country in terms of politics beyond social and financial improvements and monarchy, as an *ancien regime*, gave its place to republic on account of this coup. In this new regime, Libyan Revolutionary Command Council led by Muammar al-Qaddafi seized the government in the light of “liberty, unity and socialism” slogan.

Libyan Revolutionary Command Council encountered systematic structural problems during institutionalization of the new mechanism and the passage to the new regime. The first of these is the fact that as of the early 1970s, Libya was lack of experience and knowledge of an institutional state bureaucracy. The most significant reason underlying in this non-institutionalized bureaucracy is the fact that existing bureaucratic mechanism is not based on any socio-economic social class of the country. This structural problem, which may be defined in general as “lack of state experience”, foreshadowed that it was going to be a tough process for Qaddafi and his new regime staff to stay in power as well as to come into power. “Charismatic leadership”, a common solution method put into practice for such a problem occurring in each state experiencing such kind of structural problems in their bureaucratic process and institutionalized state memory of Middle East and North Africa, came into play in this period in Libya.

The Green Book is one of the most significant resources to comprehend Qaddafi’s ideology and “Jamahiriya” system named as a new regime aimed to take place in Libya, written by Qaddafi himself in the second half of 70s and known to be a book of doctrine of the regime. While in the first part of the Green Book, consisting of three parts, political logic of the new regime is explained, economical order is expressed in the second part and consideration, projects and suggestions on social mechanism are mentioned in the last part.

The new political regime called , Jamahiriya, systematized by Qaddafi for Libya, is claimed to carry the genuine democracy into effect. In this practice, likely to be considered as a “direct democracy” trial, the people are politically organized from bottom to up. According to this, neighbourhoods, cities and tribes gather under “People’s Congresses”, and each People’s Congress come together under a common roof called People’s Committees at an upper level. There will be a senior administration organ called General People’s Congress above People’s Committees. According to the theory in the Green Book, masses organized at the bottom will be directly included in the processes of supervising the system and making decisions till the organ of the political pyramid at the peak. Furthermore, in contrary to Western democracies, assigning representatives called deputies to bridge between the people and state, this system will directly authorize the people.

Qaddafi’s Libya turned out to be an example of the places where theory and practice did not match, and even was contrary to each other. In contrary to what is promised in the Green Book and Universal Third Theory, Libya encountered a totalitarian regime instead of genuine democracy during this period. In contrast to the theory claiming that political power is directly given to the people, the masses were taken under control by state authority during this period. The people suggested to be organized at the bottom and supervise the system were supervised by People’s Congresses on neighbourhood-city-tribe plane. Inasmuch as, in accordance with Dirk Vandewalle’s correct evaluation, People’s Congresses and People’s Committees, expected to be non-governmental organizations, held the public power in their hands and replaced administrative bureaucracy in contrast to the theory (Vandewalle, 2006, pp. 102-106). Thus, Libya, under Qaddafi’s regime, had a state system organization that differ from typical Middle Eastern dictatorships and Jamahiriya, meaning “state of masses”, and appeared to be an open totalitarian and despotic regime.

#### 5. References

- Ataöv, Türkkiye. (1975). Afrika Ulusal Kurtuluş Mücadeleleri, Ankara: Ankara Üniversitesi Siyasal Bilgiler Fakültesi Yayınları.
- Berger, Morroe. (2008). Economic and Social Change. In P.M. Holt, Ann K.S. Lambton and Bernard Lewis (Eds.) The Cambridge History of Islam, 1B, (pp. 698-731). Cambridge University Press.

- Chatterjee, Partha. (1996). *Milliyetçi Düşünce ve Sömürge Dünyası*. İstanbul: İletişim Yayınları.
- Daviş, Adid. (2004). *Arap Milliyetçiliği*. İstanbul: Literatür Yayınları.
- El-Kaddafi, Muammer. *Yeşil Kitap*. Libya Halk Bürosu Yayınları.
- Emerson, Rupert. (1965). *Sömürgelerin Uluslaşması*. Ankara: Türk Siyasi İlimler Derneği Yayınları.
- Esposito, John L. (1999). *Contemporary Islam: Reformation or Revolution?* In John L. Esposito (Ed.) *The Oxford History of Islam* (pp. 643-691). Oxford University Press.
- Güler, Zeynep. (2004). *Süveyş'in Batısında Arap Milliyetçiliği: Mısır ve Nasırcılık*. İstanbul: Yeni Hayat Kütüphanesi.
- Hajjar, Sami G. (1980). The Jamahiriya Experiment in Libya: Qadhafi and Rousseau. *The Journal of Modern African Studies*, 18, pp. 181-200.
- Heywood, Andrew. (2011). *Global Politics*. Palgrave Macmillan.
- Heywood, Andrew. (2013). *Politics*. Palgrave Macmillan.
- Hinnebusch, Raymond A. (1984). Charisma, Revolution, and State Formation: Qaddafi and Libya. *Third World Quarterly*, 6, pp. 59-73.
- İnayet, Hamid. (1988). *Çağdaş İslami Siyasi Düşünce*. İstanbul: Yöneliş Yayınları.
- Layachi, Azzedine. (2013). Islam and Politics in North Africa, In John L. Esposito and Emad el-Din Shahin (Eds.) *The Oxford Handbook of Islam and Politics* (pp. 352-379). Oxford University Press.
- Mitchell, Edward. (1982). Islam in Colonel Qaddafi's Thought. *The World Today*, 38, pp. 319-326.
- Nasr, S.V.R. (1999). European Colonialism and the Emergence of Modern Muslim States. In John L. Esposito (Ed.) *The Oxford History of Islam* (pp. 549-601). Oxford University Press.
- Obeidi, Amal S.M. (2008). Political Elites in Libya since 1969, In Dirk Vandewalle (Ed.) *Libya Since 1969: Qadhafi's Revolution Revisited* (pp. 105-127). Palgrave Macmillan.
- Oran, Baskın. (1997). *Az Gelişmiş Ülke Milliyetçiliği: Kara Afrika Modeli*, Ankara: Bilgi Yayınevi.
- Seddon, David. (2004). *A Political and Economic Dictionary of the Middle East*, Europa Publications.
- Tibi, Bessam. (1998). *Arap Milliyetçiliği*. İstanbul: Yöneliş Yayınları.
- Vandewalle, Dirk. (2006). *A History of Modern Libya*. Cambridge: Cambridge University Press.

# **European Union's Regionalization Efforts As a Foreign Policy Instrument**

Baris Gursoy

## **1. Introduction**

What is EU? There are a lot of answers had been given to this classic question. The aim of this study is not searching for a new definition of EU; but it should be noted that EU is more than a territorial entity or a name or a union. EU is a very specific kind of a regionalization experience. The background of this experience is constructed with centuries of economic and political competitions, social and intellectual movements, wars and revolutions. Except the last nearly 70 years – namely the integration history of EU – from the fall of Roman Empire, the key concepts that announced with Europe were wars, conflicts, fragmentation, instability and divisions. Europeans should need to wait for the end of the Second World War to talk about “integration”, “common policies” or “unity”. This can be argued as success story.

The reason of existence and the legitimacy of EU as a peace and prosperity project is its capability to ensure the members and citizens' security and welfare. The political and economic security of EU citizens is directly related with the peace and economic stability of EU's environment. In fact, the security of EU is strongly connected with its environment. Thus, EU has to promote peace and stability for its neighbors. The EU integration process has done so much to achieve this existential object. But in the age of numerous dangers and risks, the EU has to develop different kinds of foreign policy instruments and programs.

Traditional security approaches and conventional means are not enough to counter these threats. It is argued that a lot of key threats are generated outside the Union, especially in the near abroad. Thus the domestic precautions taken by Brussels for a stable and secure Europe could not serve for the best results. A new way of thinking and instruments should be adopted to provide a peaceful continent. Regionalization efforts can be considered as one of them. For the EU, bilateral relations with non-member countries have great importance. But in addition to bilateral relations, the EU (formerly EEC) attempts to regionalize the world by cluster of states in a sense of a region to regulate its economic and political aspirations. But it is a fact that regionalization efforts of the Union become more apparent and strict for the near environment.

## **2. The Need for a Common Foreign and Security Policy**

Europeans had never closed their eyes to outside of their continent even during the Middle Ages. The need for a foreign policy understanding rises with the internal and external developments which were dominant during the Cold War. Especially with the Arab-Israeli wars, oil crises, and the Vietnam War were all external events pushing the Europeans together. Later, the Soviet invasion of Afghanistan and the Iranian revolution and hostage crises underlined the need for a common European response. (Bindi, 2010: 21) These are some the important events of Cold War period that motive the member states for a common foreign policy.

But we need to notice that EU foreign policy is more than CFSP itself. It involved the totality of the EU's external relations, combining political, economic, humanitarian and more recently, also military instruments at the disposal of the Union. (Tonra, Christiansen, 2004: 2) As a consequence of these increasingly blurred boundaries, the EU's “first line of defense will often be abroad”. The EU's security interests therefore lie at the roots of its enhanced attention to its periphery starting from the early 2000's. In 2003, the “neighborhood” was identified as a crucial zone for the EU's security in the first Security Strategy ever drafted by the EU. (Delcour, 2010: 535) The European Security Strategy Paper argues that “Even in the era of globalization, geography is still important. It is in the European interest that countries on our borders are well-governed”. (European Security Strategy, 2003:7)

As highlighted in major EU policy documents, the Union's security interests within its own territory cannot be disentangled from its interests in its neighborhood. (Delcour, 2010: 535) With a geopolitical perspective Europe does not have a considerable problem with two of the four main directions. Western and Northern frontiers are in safe. Also, there is no need for an argumentation

about the popular debate on “where are the boundaries of Europe?” The problems are arising from East and South.

The more secure East and South will provide more comfortable life for Europeans. For Europe, no doubt, because of the geography main threats are originated from East - sometimes in the form of Huns, Russians, Mongols or Turks in the past. In another words “the other” sometimes can be found on the East (Halecki, 1980: 9-19). But historically EU considers these directions as security issues. This is not only political and militarily security issues; but it has also social, economic and environmental dimension. In addition, these issues are not only for the present but an accumulation of centuries.

Past is one of the major designers of our identities. Also the relationship between identity and space is obvious. The EU’s perception of its environment is shaped by both geography and identity. According to Kuus, security issues are everywhere. It encompasses from the inter-state relations through human rights and migration. All these issues indicate geopolitics (Kuus, 2007: 6). But trying to connect every issue with geopolitics weakens our capability to explain.

Identity is a very important factor which has strong effect on decisions and actions. To analyze EU foreign and security policies is an effort to combine both geopolitics and identity. Today the EU foreign policy and security considerations are constructed on past experiences of successes and failures with geographical restrictions. Europe’s relations with the world is constructed by historical, cultural, systemically (economic and political), ideological and geopolitical factors. This kind of networks of relations also helps to shape the identity of Europe.

In our study one of the basic argument is the most efficient instrument of the security of Europe is the EU itself. Fundamentally, the process of enlargement and political integration of EU are the best security providers. For Weaver, security and integration are strongly connected and Europe’s best security institution is EU. Thus integration becomes dependent on security arguments. These processes actively helped to decrease the tensions and potential conflicts among the members or the candidate countries. The history of integration can be argued as politization of issues. Integration is primarily security provider instrument but also enlargement also serves for creating a secure environment. Enlargement is a process in which candidate countries need to adjust themselves for membership. The EU is important for European security and it has the following roles:

1. The primarily function of keeping the core in act, ensuring there is one center rather than several in Western Europe;
2. Silent disciplining power on “the near abroad”; the managing working already in East Central Europe;
3. A potential role as direct intervener in specific conflicts. (Weaver, 2000: 260)

Naturally, result of these adjustments is internalizing the fundamental principles of EU, Europeanization, de-securitization of their local issues and harmonizing their policies with Brussels’ policies. So we can argue that all the enlargement moves and membership negotiations of EU serves for EU security. With integration and enlargement, EU provides its security not by military force, balance of power, deterrence or the number of divisions; but with consent, charming, awards and persuasion.

European Security Strategy address that “the integration of acceding states increases our security but also brings the EU closer to troubled areas. Our task is to promote a ring of well-governed countries to the East of the European Union and on the borders of the Mediterranean with whom we can enjoy close and cooperative relations”. (European Security Strategy, 2003, 8) According to Kratochvil EU is the locomotive of the modernization and reform for the region. In this sense “teacher” is the best metaphor to describe EU. EU is a dominant actor in the region and it manipulates them and aims to modernize. (Kratochvil, 2009: 10) On the ground of geography and principles enlargement is not infinitive. But there is also a need for influence. So there must be new formulations and different engagements. These needs will shape the foreign policy of the Union. As threats and risks become de-territorialized, the Union tends to reproduce “logic of territoriality” on its periphery by seeking to impose a liberal democratic governance model that is based on normative agreements with partner countries (Nunes, 2011: 6)

After the Cold War political integration accelerated and CFSP located at the center of the EU discourse. New foreign policy mechanisms and instruments, foreign policy priorities, principles and tasks are formulated. In this formulation good neighborly relations, strengthening market mechanisms and democracy, good governance, accountability, transparency, human rights and minority rights are strongly emphasized as the fundamentals of EU. In fact, these core concepts are the keywords of EU's discourse its near environment. The political, military, economic, societal and environmental security of the EU and the success in promotion of these concepts to its environment is closely related.

In a speech in 2000, Romano Prodi interpreted the EU's mission towards its environment. According to Prodi, Europe should reflect its societal model to the rest of the world. This is not only for the protection of those; but also they should have benefitted from Europe's unique historical experience. Finally Prodi explained this experience as "emancipation of people from poverty, wars, pressures and intolerance" (Manner, 2006:19).

It is obvious that enlargement and integration are the most effective security providers for EU. Although, it is nearly impossible to enlarge forever, at least it would be extremely costly. In fact, according to Tassinari, if Europe has two options as instability and divisions and integration; Europe will choose the integration (Tassinari, 2009: 27). But instead of integration and enlargement Europe would have another alternative policy to manipulate or design the developments in the near environment. This is also related with promotion of EU experience. In this sense, this study argues that regionalization of near environment can have contribution to this objective.

### 3. Regionalization Efforts

The concept of "region" derived from the Latin verb "rego" which means "to steer" or "to rule". Subsequently, the concept of region has frequently been used to denote 'border' or a delimited space, often a "province". Many mainstream disciplines and discourses have maintained a strong emphasis on "territory", "function" and "rule" in the study and definition of regions. (Söderbaum, 2005:90) Geographically, region is some certain territory with a homogeneous and specific characteristics which differs it from other places (Pace, 2006: 1). In fact geographical explanations are not satisfactory for the case of EU's efforts and necessities.

Region is a place constructed by states where there is a geographical links, mutual interdependence with an understanding of belonging (Pace, 2006: 27). The literature about regionalization gives more complicated processes for their emergences. There is no common understanding that a region is constructed naturally or consciously planned. A region may have certain coherence and this is called level of regionness. For a high level of regionness physical proximity, regional identity, collective action capability and having the capacity of being an actor in security issues are needed. When the level of regionness of a region is low, the foreign manipulations would be high (Björn, 2008: 89).

The emergence of a region cannot be completed only with physical or material factors. Regions are product of the objectives and interests of the actors. (Tassinari, 2005: 10) So it can be said that a region is not only a matter of geography. Culture, history, language, religion has also contribution to this process. And it is finally design with discourses of the actors. Thus, actors who can construct powerful discourses would reflect their characteristics, intentions, experiences, interests and surely their values and principles. Regions are not naturally given creatures, they are socially constructed (Pace, 2006: 41-43). Beside lingual, cultural or religious similarities the relations are also important. These relations distinguish territories and have power to put deep link among societies. According to King, region is a political concept which is designed as projects by politicians (King, 2008: 3)

EU is a regional structure. It is usually considered as more than as a geographical name. Because of very unique skills and capabilities EU makes a great difference among the other regionalization efforts. Also another foreign policy practice of EU is – as a product of a regionalization process – it tries to regionalize its environment. EU has never missed the international system while considering the world outside its borders and designing its foreign relations. Even during the Cold War and within the block policies, EU developed various popular approaches of the period. One of these popular practices



was regionalization. In the history of CFSP, EU has developed relations with states individually and also a group in the sense of a region.

According to the external relations service there are several regions in the world. These are Africa; Africa, Caribbean and Pacific Group; Asia; Candidates and potential candidates; Gulf States; Latin America; Mediterranean and Middle East; North America; Other European States; Overseas countries; South Caucasus; Western Balkans are some of them. And there are 7 regional policies: Black Sea Synergy; Central Asia Synergy; EU Arctic Policy; Europe-Mediterranean Partnership; European Economic Area; ENP and Northern Dimension. (European Union External Service) It is clearly understood that the regions which are identified by EU become more detailed when they become closer to the Union. Moreover regional policies for such kind of regions are more intensified.

The question is so obvious. Why EU prefers to design foreign policies of regions instead of taking them one by one. For example Ukraine and EU has bilateral relations. But also Ukraine is in ENP and Black Sea Synergy. Why EU tries to regionalize its environment? There may be two answers. One of them is "governmentality". European states solved many of their traditional issues within EU. Rationalism, which means the replacement of divine and god centered world by reason and bureaucracy solved the domestic issues of modern European states. The main logic in this process was regulating social, economic and political life with law and order. This was successful within the states but it could not adopt among their relations until the end of Second World War. Steel and Coal Community was the first fruit of Europe's common rationality and rational organization.

The other reason for regionalization efforts of EU's environment might be the difficulties of constructing relations with states individually. Bilateral relations can produce most preferential (favored) state or can create double standards according to partners. This can result in disappointments or criticisms among the neighbors. But taking states in a manner of a region together or categorizing them would serve a framework with more efficient governmentality. The specificity of EU actorness does not derive from ruling out the use of coercive power but from the fact that its global responsibilities are discursively framed by liberal democratic ideals and guided by the principles of international law, including humanitarian law (Nunes, 2011: 12).

In a world of complex and diverse threats and challenges, where state power is inadequate and existing multilateral institutions face severe overload or whose agendas are heavily skewed to favor key states, regionalism is both desirable and necessary. (Fawcett, 2005:22) Also in an age of hegemonic completion, EU needs to formulate effective regional policies to promote European principles and values. A hegemonic power, by definition, orders the systems to serve its interests, but in so doing, it creates institutions and works to develop norms of behavior that ultimately benefit other states, while serving its own interests (Kearns, 2011: 65-85).

#### 4. Conclusion

To follow a regional policy must begin with every region requires: acceptance of those countries that they are members of the region. This is the hardest challenge for pursuing regional policies. Bilateral relations are quite easier to establish. For instance European Neighborhood Policy (ENP) offers differentiated action plans and progress reports. But in ENP, some partner countries may have progress; some may not. The partner countries which have progress may demand more than partnership or some countries may not satisfy for a convergence to the EU demands because of lack of awards or benefits.

The EU is the most successful regionalization project of the history of civilization. This success can be observed in many areas. But sustainability of these achievements is connected with outside of EU boundaries. In security perspective EU needs to promote its own success as model for its near abroad. In this promotion the EU follows regional policies. EU should expect four outputs from regionalization of its environment. These are:

1. If regional countries can construct a regional identity among each other they can develop their own problem solving mechanisms in political platforms with peaceful methods.
2. Instead of bilateral relations a regional perspective would provide easier and efficient governmentality
3. If EU's regionalization efforts succeed other global powers' influence would be restricted.

#### 4. It is EU's interest to encourage actors of the region for cooperation.

The following consequences above are related with European experience. If the EU could motivate and promote the regionalization in its environment, it result of this process will be a kind of Europeanization. Europeanization of the environment would be a success of the EU and could be considered as a guardian of its security. As Fawcett argues, in the world of complicated threats and challenges when the power of states is not enough to confront with them, regionalization becomes both desired and necessary option (Fawcett, 2005:22).

### 5. References

- A Secure Europe in a Better World, European Security Strategy, Brussels, 12 December, 2003, <https://europa.eu/globalstrategy/en/european-security-strategy-secure-europe-better-world>.
- Bindi, Federiga. (2010). European Union Foreign Policy: A Historical Overview, In Federiga Bindi (Ed.), *The Foreign Policy of the European Union: Assessing Europe's Role in the World*, Brookings Institution's Press.
- Delcour, Laure. (2010). The European Union, a Security Provider in the Eastern Neighbourhood?, *European Security*, 19:4, pp. 535-549.
- European Union External Service, [https://eeas.europa.eu/headquarters/headquarters-homepage/area/foreign-affairs\\_en](https://eeas.europa.eu/headquarters/headquarters-homepage/area/foreign-affairs_en).
- Fawcett, Louise. (2005). Regionalism from an Historical Perspective, In Mary Farrell, Björn Hettne, Luk Van Langenhove (Eds.) *Global Politics Of Regionalism: Theory and Practice*, Pluto Press.
- Halecki, Oscar. (1980). Borderlands of Western Civilization, In Andrew L. Simon (Ed.), *A History of East Central Europe*, (pp. 9-19). La Vergne: Simon Publications.
- Hettne, Björn. (2008). Teori ve Pratikte Güvenliğin Bölgeselleşmesi, *Uluslararası İlişkiler*, 5:18, pp. 87-106.
- King, Charles. (2008). The Wider Black Sea Region in the Twenty-First Century, In Daniel Hamilton and Gerhard Mangott (Eds.) *The Wider Black Sea Region in the 21st Century: Strategic, Economic and Energy Perspectives*, (pp. 1-19). Center for Transatlantic Relations.
- Kearns, David W. (2011). The Hard Truths about Soft Power, *Journal of Political Power*, 4:1, pp. 65-85.
- Kuus, Merje. (2007). Geopolitics Reframed: Security and Identity in Europe's Eastern Enlargement. New York: Palgrave Macmillan.
- Manners, Ian. (2006). The Constitutive Nature Of Values, Images and Principles In The European Union, In Sonia Lucarelli, Ian Manners (Eds.), *Values and Principles in European Union Foreign Policy*, (pp. 19-41). New York: Routledge.
- Nunes, Isabel Ferreira. (2011). Civilian, Normative, and Ethical Power Europe: Role Claims and EU Discourses, *European Foreign Affairs*, 16, pp. 1-20.
- Pace, Michelle. (2006). The Politics of Regional Identity: Medding with the Mediterranean, New York: Routledge.
- Petr, Kratochvíl. (2009). Discursive Constructions of the EU's Identity in the Neighbourhood: An Equal Among Equals or the Power Centre?, *European Political Economy Review*, 9, pp. 5-23.
- Söderbaum, Fredrik. Exploring the Links Between Micro-Regionalism and Macro-Regionalism, In Mary Farrell, Björn Hettne, Luk Van Langenhove (Eds.), *Global Politics Of Regionalism: Theory and Practice*, (pp. 87-104). Pluto Press.
- Tassinari, Fabrizio. (2005). Security and Integration in the EU Neighbourhood: The Case for Regionalism, *Centre for European Policy Studies*, CEPS Working Document, 226/July.
- Tassinari, Fabrizio. (2011). Avrupa Komşularından Neden Korkuyor? İstanbul: İnkilap Kitabevi.
- Tonra, Ben, Christiansen, Thomas. (2004). The Study of EU Foreign Policy: Between International Relations and European Studies, In Ben Tonra, Thomas Christiansen (Eds.), *Rethinking European Union Foreign Policy*, (pp.1-10). Manchester University Press.
- Weaver, Ole. (2000). The EU as a Security Actor: Reflections From a Pessimistic Constructivist on Post-Sovereign Security Orders, In Morten Kelstrup, Michael C. Williams (Eds.), *International Relations Theory and the Politics of European Integration*, (pp. 250- 294). Routledge.



# Investigation Of Foreign Direct Investments In Global Competitive Dimension In Eu Countries

Aylin Konu, Nisa Secilmis

## 1. Introduction

While globalization has enabled the integration of the country's economies, the information revolution has brought the markets, companies, organizations and management to become international. Implementations aimed at eliminating obstacles in front of the world trade have brought forward the free market circulation of goods and services and brought the market races between countries to advanced dimensions (Öymen, 2000: 26). Because, with globalization, firms have to compete with local and foreign competitors in the local market as well as with the markets in other parts of the world (Oral, 2004: 2). In this case, competitiveness is becoming a necessary and important tool for getting more share from the continuously growing global market, or at least maintaining its current share (Yapraklı, 2011: 374).

Globalization has also led to large increases in foreign direct investment (FDI). At the beginning of the nineteenth and early twentieth centuries, it was observed that the countries invested more in their sovereignty or influence countries, but the industrial and the financial investments of the developed countries towards each other in the late 20th century were observed to have increased greatly (Öymen, 2000: 33-34). Amounted to \$ 13.257 million in 1970 in total, world FDI inflows and outflows amounted to \$ 54,396 million in 1980, \$ 204,905 million in 1990, \$ 1,360,254 million in 2000, \$ 1,591,144 million in 2010, and in 2016 it was realized as \$ 1,746,423 million (UNCTAD, 2018). As it is clear from the data, FDI inflows have increased even more since the 1980s, when the impact of globalization has increased.

In a globalized economic platform, it is only after building a high-quality production system that adds value to the success of firms, sectors, regions or countries. The creation and sustainability of this system depends on the power of the informatics lifter acquired in the areas of technology, design, product and process development. FDIs contribute to the competitiveness of these countries in the international marketplace by making it easier for countries to carry this informatics and to spread it to local firms.

Although factors such as labor cost, openness, exchange rate, market volume, factors that determine global competitive power are widely mentioned in the literature, very few studies have been conducted on the impact of foreign direct investment on competitiveness. With this study, it will be tried to find out whether foreign direct investment provides a competitive power for the country's economies in the international arena and try to solve the deficiency in this issue. For this purpose, priority will be given to information on competitiveness and direct foreign investment, and then the impact of direct investments on competitiveness will be tested by Cross Sectional Analysis using the 2016 data for EU countries.

## 2. Notion of Global Competitiveness

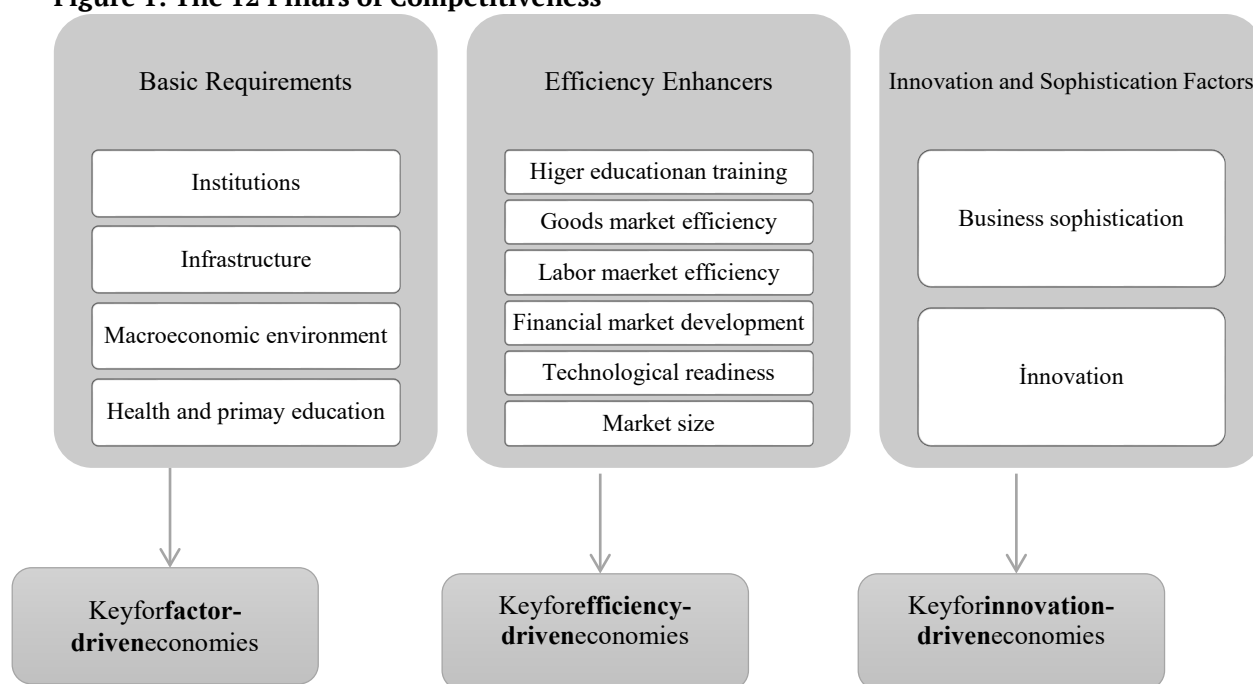
By increasing liberalization movements and integration, competitiveness is a common concern for developed and developing countries (Porter et al., 2007: 52; Esiyok, 2001: 2). Despite its importance in the global dimension, the basic pillars of competitiveness continue to be discussed and there is no commonly accepted definition of competition power. Porter et al. (2007) has defined competition power as a share of the global market for the products of countries. The World Economic Forum (WEF) defines competitiveness as an productivity level that covers all of the institutional, policy and production factors that will ensure sustainable growth in an economy (Ovalı, 2014: 18).

Competitiveness of countries is under the influence of many micro and macro variables including scale economies, labor cost, strong intellectual stocks, the effectiveness of R&D indicators, the

existence of an advanced economic technology, foreign trade surplus ability, interest rate, exchange rate and foreign direct investment (Çivi et al., 2008: 4, Porter, 1990: 73Keskin, 2011: 52).

While the scales like total factor productivity and per capita national income are used to make international competitive power comparisons, many researchers and institutions are working to develop a competitive measure that is globally valid. The Global Competitiveness Index (GCI) developed by the WEF in 2005 is one of the most comprehensive and generally accepted work in this area. In the report, 104 countries that produced about 90% of total production worldwide, 94% of world exports and succeeded in attracting, 95% of total international foreign capital to their countries are mentioned (Çivi et al., 2008: 12). The GCI consists of twelve components that are aggregated under three subindex headings, and different weights are used in the calculations according to the level of development of the countries (ADASO, 2017: 1).

**Figure 1: The 12 Pillars of Competitiveness**



Source: Schwab et al., 2010: 9

According to GCI, since economies are factor-driven in the first instance, competitiveness is based on factor assets, particularly unskilled labor and natural resources. Firms compete with basic goods and prices they produce with low productivity and low prices. Competitiveness for these growing economies depends primarily on well-functioning public and private institutions, a well-developed infrastructure, a stable macroeconomic environment and a well-trained and healthy workforce. The more the country becomes more efficiency-driven and more competitive, the more efficiency and wages increase. Competition in this phase is gained through higher education and training, efficient commodity and labor markets, sophisticated financial markets, the ability to use existing technology and a large domestic and foreign market. When it comes to the latest development phase, which is based on innovation where costs are rising, firms compete by using sophisticated manufacturing processes and by producing new and unique products.

Table 1 shows the countries in the top 10 in 2016 and 2017 according to the GCI rankings. According to this, Switzerland ranked first in 2016 and 2017, while the US rose to second place in 2017 from the third in 2016, and Singapore was in second place in 2016 and third place in 2017. Singapore is followed by the Netherlands, Germany, Hong Kong, Sweden, the United Kingdom, Japan and Finland respectively. As it can be clearly seen, the countries in the top 10 in both years have not changed.

**Table 1: Top Ten Countries in the World in Competitiveness**

Top 10 Country	GCI-2017 Ranking (137 country)	GCI-2016 Ranking (138 country)
Switzerland	1	1
USA	2	3
Singapore	3	2
Netherlands	4	4
Germany	5	5
Hong Kong	6	9
Sweden	7	6
United Kingdom	8	7
Japan	9	8
Finland	10	10

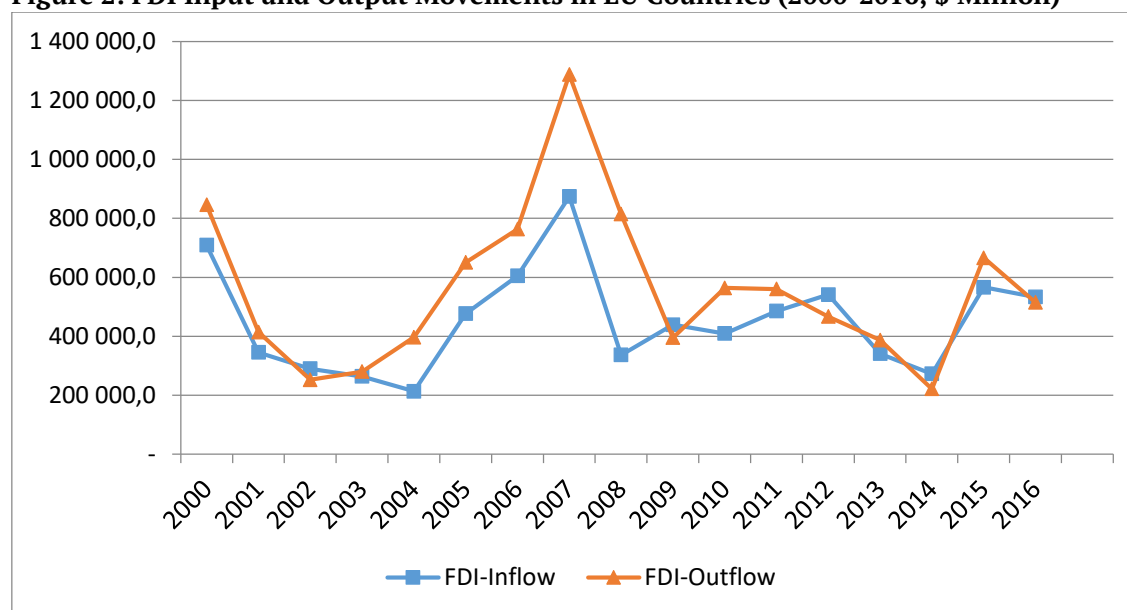
Source: UNCTAD

### 3. Global Competitiveness and Foreign Direct Investments

Foreign direct investment, which started to develop with the process of globalization in the world, has become a focal point in terms of developed and developing countries due to its impact on development. Increasing the competitiveness of developed countries providing benefit use cheap labor and raw materials and creating new markets, and providing transfer of capital and technology to developing countries make direct foreign investments attractive for both countries (Keskin, 2011:53 ).

Figure 2 shows the direct foreign capital inflows and outflows of EU countries between 2000-2016 years FDI. It can be seen that FDI inflows are always higher than inflows except for some years. Entrants and exits to the highest level in 2007 went into a sudden fall with the global crisis in 2008, still not at the highest level in 2007.

**Figure 2: FDI Input and Output Movements in EU Countries (2000-2016, \$ Million)**



Source: UNCTAD

International direct investments owns high technology investments that will provide competitiveness in a country and opportunities to spread these investments to other firms in the country. Therefore, in order to provide maximum benefits from international direct investments, it is necessary to encourage the entry of these investments in both technology-intensive sectors and to strengthen the forward and backward links with domestic producers.

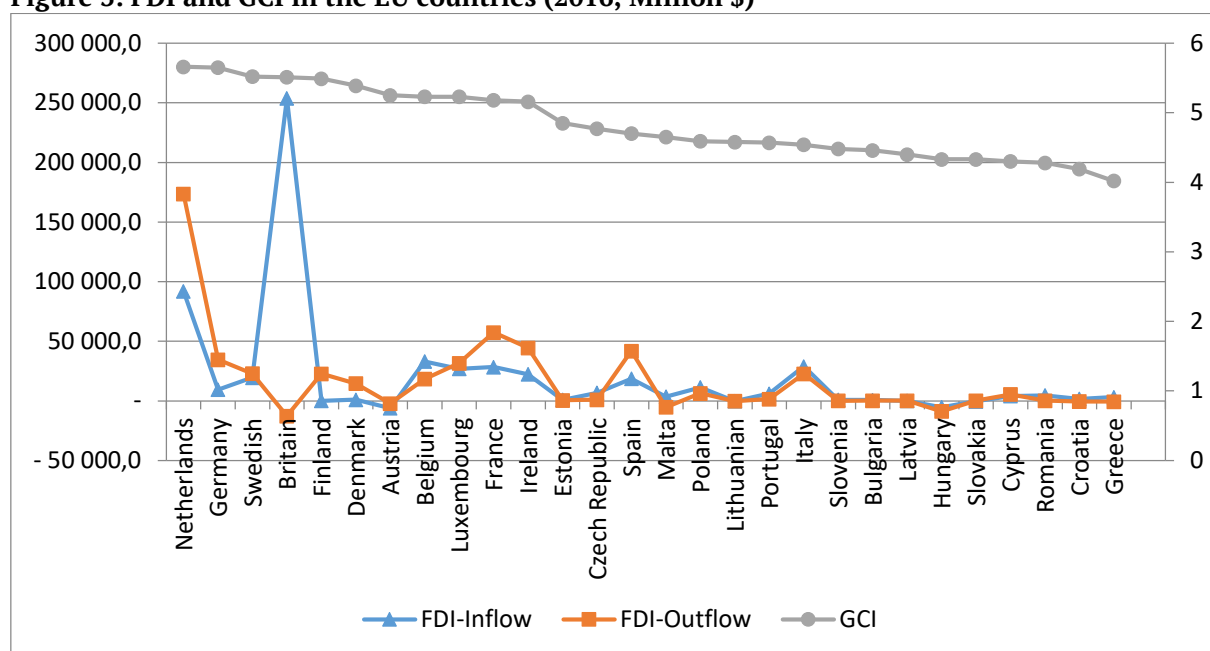
The impacts of foreign direct investment on global competitiveness may vary depending on the economic potential of the countries, the opportunities of adapting to technological innovations, the

capacity to create new markets, and the legal and institutional infrastructures. It is known that direct investments contribute positively to global competitiveness through countries' accumulation of human capital, advanced technology and R&D activities (Karaca, 2014: 722)

An important reason why foreign direct investment is an opportunity to gain global competitive power for companies is the advanced technology production structure that these investments bring to the host country. At the same time, the management knowledge and investment of the well-educated human capital reduces the external dependency of these investments and accelerates the transition from the import-dependent industry to the export-based industry by spreading these factors to the local firms due to the absorptive capacity of the country in the long run (Karaca, 2014: 722,723).

According to Figure 3, in which FDI inflows-outflows and GCI in the EU countries are shown, the highest FDI inflow in 2016 was in England and the outflow in the Netherlands, while the lowest inflow and outflow in Greece occurred in 2016. Considering the country order is given according to GCI, it is observed generally that GCI is high in countries with high FDI movements in general, and GCI is low in countries with low FDI movements.

**Figure 3: FDI and GCI in the EU countries (2016, Million \$)**



Source: UNCTAD

Studies examining the relationship between foreign direct investment and the level of competition of the countries emphasize that direct investments are significant influences on the countries' global competitiveness (Grosse and Trevino 1996, Blomström and Kokko 1998, Narula and Marin 2003).

In Anastassopoulos (2007) empirical study, the relationship between international competitiveness and FDI performance for 15 EU countries was investigated. According to the author, there are four elements: competitiveness, economic performance, public efficiency, work efficiency and infrastructure. The results show that the northern and southern EU countries are different in terms of factors affecting investors. In the southern countries, investors focus on reducing investment risk and government productivity, while in northern countries, investors pay more attention to market characteristics, bureaucracy level, productivity and openness of the business sector.

In their study, Castro and Buckley (2001) investigated the relationship between competitiveness and foreign direct investment for the Portuguese economy. The findings show that the inability to meet the higher production costs of the country due to the resources created has removed the competitiveness of direct investments altogether.

In the studies conducted by Narula and Wakelin (1998), it is emphasized that technology is the engine of competition and more innovative countries are more attractive for investors. Moreover, it is stated that if the investment environment evolves through infrastructure, education and training, and

therefore a healthier macroeconomic environment is provided, foreign capital inflows will also increase.

According to Nunnenkamp (2004), FDIs are expressed not only as a transfer of capital but also as a powerful mechanism involving transfer of technology and know-how in terms of host countries. Through the effect of diffusion, FDI can increase the productivity and competitiveness of all firms and economies, not only those firms in which foreign investors are included (Nunnenkamp, 2004: 30).

Blomström and Wolff (1989) found in their studies for 1965-1984 period of the Mexican economy that the increase in competition from foreign firms entering the country through foreign direct investment will be much more productive by putting pressure on domestic firms that do not work efficiently (Blomström and Wolff, 1989: 12).

Karaca (2014) investigated the effects of public interventions in 28 countries for 1996-2011 on international direct investments and the impact of countries' global competitiveness using panel data analysis. The results of the study show that the level of education and the R&D capacity in the country promote international direct investment inflows, while high tax rates prevent investment. In addition, it has been concluded that international direct investment in the country has positive effects on the competitiveness.

#### 4. Model and Data Sources:

This study aims to test the relationship between FDI and global competitiveness. To this end, the impact of foreign direct investment on the global competitiveness will be tested on a basis of 2016 period for the 28 EU member countries<sup>17</sup> using the cross section analysis method.

##### 4.1. Empirical Model

The main purpose of the econometric model used in the study is to investigate the impact of foreign direct investments on global competitiveness. In the framework of the econometric model to be formed in this framework, higher education expenditures, R&D expenditures and foreign direct investments are included as explanatory variables in the model. The dependent variable of the model is determined as the global competitiveness index.

The variables used by Karaca (2014) and Gemmell et al. (2008) in their studies are based while determining the influence of foreign direct investments on global competitiveness. The mathematical expression of the model is as follows:

$$GCI = \beta_0 + \beta_1 HE + \beta_2 R\&D + \beta_3 FDI + \varepsilon_i$$

Here GCI shows the global competitiveness index and the explanatory variables HE, R&D, FDI indicate higher education expenditures, research and development expenditures and foreign direct investments, respectively.  $\beta_0$  is the constant term,  $\beta_1, \dots, \beta_3$  are the slope parameters, and  $\varepsilon_i$  is the error term.

##### 4.2. Data Sets and Resources

Dependent and independent variables in the model and sources of these data are explained below. The variables belonging to the models belong to the year 2016.

The Global Competitiveness Index, published by the World Economic Forum (WEF), was used for global competitiveness as a dependent variable in the econometric model used in the study. This index is a comprehensive tool that measures the microeconomic and macroeconomic bases of national competitiveness. In this regard, the index refers to the "Global Competitiveness Report 2017-2018". These index values consist of values between 1 and 7. 1 indicates that global competition power is low and 7 is high.

---

<sup>17</sup>Germany, Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Cyprus, Netherlands, England, Ireland, Spain, Sweden, Italy, Latvia, Lithuania, Luxemburg, Hungary, Malta, Poland, Portugal, Slovakia, Slovenia, Greece, Bulgaria, Romania and Croatia.



The ratio of direct foreign investments to GDP, which is the main explanatory variable in the study, is used. The data are taken from the World Bank internet data page.

Other explanatory variables in the study, higher education expenditure and R&D expenditure to GDP ratio are used. The data were taken from the Eurostat internet data page, which is the statistical line of the EU.

The sources of these variables and the anticipated effects on global competitiveness are shown in Table 2.

**Table 2. Source and Expected Signs of Variables**

Variable	Source of Variable	Expected Signs
Global Competitiveness Index	<i>Global Competitiveness Reports</i> (2017-2018)	
Foreign Direct Investment /GDP	World Bank	+
Higher Education Expenditure/GDP	EUROSTAT	+
R&D/GDP	EUROSTAT	+

#### 4.3. Evaluation of the Estimation Results

In the model estimated, the relation between global competitive power, which is a dependent variable, and the direct foreign investments, higher education expenditures and R&D expenditures, which are independent variables are examined. These variables were estimated by cross-sectional analysis method using the data for 2016 for 28 EU member countries. The one between.

The main problem that arises in studies using the cross-section method is the problem of varying variance. For this reason, it is necessary to make estimates in cross-section analysis by eliminating the problem of varying variance. The model was estimated using the "White heteroskedasticity-consistent standard errors & covariance" approach (Wooldridge, 2001: 55), which is the most common and preferred method for resolving the variance problem in this study. Thus, estimates were obtained by eliminating the variance problem.

The estimation results obtained by the least squares method (LSM) are given in Table 3. The  $R^2$  value of the predicted economic model is 0.61<sup>18</sup>. The low value of  $R^2$  obtained in this frame model reveals the overall significance of the model. In addition, F statistical results which test the coherence of the slope coefficients in the model reveal the significance of the model. Therefore, this model, which is used in the study, has been tested with respect to  $R^2$  and F statistical results.

**Table 3: The Estimation Results**

Dependent Variable: GCI			
Variable	Coefficient <sup>H</sup>	t statistics	p-value

<sup>18</sup>The  $R^2$  value, which indicates how much of the dependent variants are explained by the independent variables, can be considered low when evaluated in terms of econometric methods. However, it is known that the  $R^2$  obtained from the estimations made with the cross section data are generally small. Studenmund (1992: 47) indicated that a cross-sectional data of 0.5 in  $R^2$  is a good fit (Agir and Kar 2010: 167).

<b>HE</b>	1,310443	1,834850	0,0951**
<b>R&amp;D</b>	3,452107	6,722090	0,0000*
<b>FDI</b>	1,186905	1,711929	0,0998**
<b>ConstantTerm</b>	3,531327	13,49048	0,0000*
<b>R<sup>2</sup></b>	0,612807		
<b>F-statistic</b>	19,85581		
<b>Prob(F-statistic)</b>	0,00000		

\* %1 Statistically significant coefficient at significance level

\*\* %10Statistically significant coefficient at significance level

H: It shows the new prediction made by considering the varying variance problem upon the detection of the varying variance. In this way the coefficients do not change, but the standard errors are changing and it is important that the coefficients are meaningful according to the new prediction result.

According to the empirical results, there is a statistically significant and positive relationship between the FDI and the global competition index at the level of 10% significance. An increase of 1 unit in foreign direct investments causes an increase of 1.186905 points over the global competition index.

Another explanatory variable, higher education expenditures, was found to have a statistically significant and positive effect on the global competition index at the level of 10% significance. One unit increase in higher education expenditures leads to an increase of 1.310443 points in the global competitiveness index.

According to the model's estimation results, there is a statistically significant and positive correlation between R&D expenditures and global competitiveness index at 1% significance level. In this case, an increase of 1 unit in R&D expenditures leads to an increase of 3.452107 points over the global competition index.

As a result, this study of 28 EU countries with the year 2016 data shows that the increase in direct foreign investments contributed to the increase of global competition power.

## 5. Conclusion

For the first time, the international competitiveness that comes to the fore with the Theory of Absolute Advantages is accepted as one of the criteria of success and performance of an economy in today's economic world which is increasing and globalizing every day. In many different academic studies, it has been concluded that competition power has a positive effect on the growth rate of firm, industry and country economies and contributes to the faster growth of countries' wealth levels. International competitiveness, influenced by many parameters on micro and macro scale, is one of the most economically important instruments that should be supported economically and politically, because it is ultimately related to the improvement and continuity of income, employment and prosperity.

In this context, foreign direct investment, which is one of the important parameters in terms of global competitive power, is important for developed and developing countries as it brings many advantages such as cheap labor force, cheap raw materials, new markets, human capital, advanced technology. For the EU countries, it is observed that GCI is high in countries with high foreign direct investments and GCI is low in countries where foreign investments are low.

In the study, the relationship between FDI and global competitiveness is estimated using the cross section method. According to the findings obtained from the study, it is statistically confirmed that the increase in FDI level leads to a positive effect on the global competitive power. Furthermore, it is

concluded that there is a statistically significant and expected interaction between the explanatory variables used in the model and global competitiveness. Accordingly, higher education expenditures and, in particular, increases in R&D spending increase global competitiveness. As a result, the adoption of FDI enhancing measures is gaining importance in order for economies to perform better in terms of global competitiveness.

## 6. References

- ADASO (2017). Dünya Ekonomik Forumu Küresel Rekabetçilik Endeksi 2016-2017 Baskısı. Erişim: <http://www.adaso.org.tr>.
- Anastassopoulos, G. (2007). Countries' International Competitiveness and FDI: An Empirical Analysis of Selected EU Member-Countries and Regions. *Journal of Economics and Business*, 10(1), pp. 35-52.
- Blomström, M. & Kokko, A. (1998). Multinational Corporations and Spillovers. *Journal of Economic Surveys*, pp. 247-277.
- Blomström, M. & Wolff, E. N. (1989). Multinational Corporations and Productivity Convergence in Mexico. *National Bureau of Economic Research*, Working Paper No. 3141.
- Castro, F. B. & Buckley, P. J. (2001). Foreign Direct Investment and the Competitiveness of Portugal. *IV Conferencia sobre a Economia Portuguesa CISEP – Centro de Investigação Sobre a Economia*.
- Çivi, E., Erol, İ., İnanlı, T., & Erol, E. D. (2008). Uluslararası Rekabet Gücüne Farklı Bakışlar. *AİBÜ-İİBF Ekonomik ve Sosyal Araştırmalar Dergisi*.
- Eşiyok, B.A., (2001). Dünya Rekabet Gücü İçerisinde Türkiye'nin Yeri. Türkiye Kalkınma Bankası.
- Gemmell, N., Kneller, R. & Sanz, I. (2008). Foreign Investment, International Trade And The Size and Structure Of Public Expenditures. *European Journal of Political Economy*, Volume 24, Issue 1, pp. 151-171.
- Grosse, R. & Trevino, L. J. (1996). Foreign Direct Investment in the United States: An Analysis by Country of Origin. *Journal of International Business Studies*, Vol. 27, No. 1, pp. 139-155.
- Karaca C. (2014). Kamu Müdahalelerinin Küresel Rekabet Gücü ve Uluslararası Doğrudan Yatırımlar Üzerindeki Etkisi: Türkiye Örneği, *International Journal of Human Sciences*, Volume 11, Issue 1.
- Keskin, B. (2011) *Türkiye'nin Uluslararası Rekabet Gücü ve Doğrudan Yabancı Sermaye Açısından Değerlendirilmesi*, Yüksek Lisans Tezi, Çukurova Üniversitesi Sosyal Bilimler Enstitüsü, Adana.
- Narula, R. & Marin, A. (2003); *FDI Spillovers, Absorptive Capacities and Human Capital Development: Evidence from Argentina*. MERIT Research Memorandum, 16.
- Narula, R., Wakelin, K. (1998). Technological competitiveness, trade and foreign direct investment. *Structural Change and Economic Dynamics*, 9(3), pp. 373-387.
- Nunnenkamp, P. (2004) To What Extent Can Foreign Direct Investment Help Achieve International Development Goals?. *The World Economy*, 27 (5), pp. 657-77.
- Oral, M. (2004). Rekabet Gücü Ölçümü ve Strateji Saptanması, Laval Üniversitesi, *Yönetim Bilimleri Fakültesi*, Ste-Foy Québec, RQ. GİK 7P4, Kanada.
- Ovalı, S. (2014). Küresel Rekabet Gücü Açısından Türkiye'nin Konumu Üzerine Bir Değerlendirme. *Uluslararası İktisadi ve İdari İncelemeler Dergisi*, 13(13), 17-36.
- Öymen, O. (2000) *Geleceği Yakalamak*. 2. Basım, Remzi Kitabevi. İstanbul.
- Porter, M. (1990). The Competitive Advantage of Nations. *Harvard Business Review*, March-April 1990, pp.72-91.
- Porter, M. E., Ketels, C., & Delgado, M. (2007). The Microeconomic Foundations Of Prosperity: Findings From The Business Competitiveness Index. *The Global Competitiveness Report 2007-2008*, pp. 51-81.
- Schwab, K., Sala-i Martin, X., & Greenhill, R. (2010). The Global Competitiveness Report 2010-2011. *Geneva: World Economic Forum*.
- Studenmund, A.H. (1992). *Using Econometrics: A Practical Guide*, Second Edition, New York: Harper Collins Publishers.
- UNCTAD, (2018). <http://unctadstat.unctad.org>.

Wooldridge, J. M. (2001). *Econometric Analysis of Cross Section and Panel Data*, The MIT Press, Cambridge, London.

Yapraklı, S. (2011). Uluslararası Rekabet Gücünü Etkileyen Makroekonomik Faktörler: Türk İmalat Sanayi Üzerine Bir Uygulama. *Sosyal Ekonomik Araştırmalar Dergisi*, (22), pp. 373-402.



# Free Zones and Place in Foreign Trade of Turkey

Nurdan Kusat

## 1. Introduction

Beginning of developments in the understanding of free regionalism in the world goes back to about 2000 years. In Turkey, developments in this case take place on the agenda with implementation of the open economic policies and export-led growth concept after within the framework of January 24, 1980 Decisions. With the date of June 15, 1985 and number 3218 Free Zones Law, it became an official identity in Turkish foreign trade. Nowadays, founding goals of FZ do not reveal many differences in terms of both Turkey and global economies.

In the broadest definition of FZ; accepted the outside of the custom line while within the political boundaries, legal and administrative arrangements which apply in the country in the commercial, financial and economical areas not implemented or partially implemented, the recognition of broader incentives for industrial and commercial activities, places where physically separated from other parts of the country (Uzay ve Tıraş, 2009:248).

In this study, giving place to FZ's development in the world briefly, positive and negative consequences for the economy of the country is assessed on the basis of this understanding literature. After that, Free Zones' position in Turkey's foreign trade had been demonstrated both theoretical and numerical datum. In the conclusion part, within the framework of data which collected and analyzed, decrease of Free Area Trade in the part of Turkey's foreign trade year by year is discussed with the reasons and solutions are being sought to be created.

## 2. Development of Free Zones Understanding

First applications of FZ's had been encountered in ports with heavy use of property in the inland seas like Mediterranean Sea. Thoman (1956:14) mentions about that impact of Merchantilism on the commercial in parallel with Free Port and FZ's importance is increasing rapidly and increases it's effectiveness involving the Far Eastern ports. After 29 Depression, FZ applications began to lose its popularity to a certain extent with the protectionist policies take place of the liberal policies. As Ay (2009:35) indicated; it has been observed that as of 1934 USA had started to establish Free Foreign Trade Regions, and with this method it had been tried to prevent the contraction in international trade.

From FZ approach first emerged to until today has been exposed to a number of changes in the process is natural. All kinds of storage, production, assembly, disassembly, research and development, packaging activities have become can be made in the FZ. This development in FZ's functions increased the kinds of FZ. Ay (2009:34) refers to this species of FZ as follows: "Duty-free zones, free economic zones, industrial free zones, free trade zones, free processing zones, free export zones, export free zones, export processing zones, investment promotion zones, free ports, free banking zones or off-shore banking, free insurance zones, free enterprise zones, free gambling zones and free medical zones are free zones which are all products of the same idea and thus very similar to one another; but differ from each other in terms of the scope of activities carried out within them."

In Zeng (2015:7-10)'s study which he describe "Special Economic Areas", he evaluates what developing countries to do about FZ and what behavior they should avoid in detail way. **"What to do:** Land reforms, investment incentives and institutional autonomy, foreign direct investment, technology learning, innovation, upgrading and strong links with the domestic economy, Innovative cultures, clear objectives, benchmarks and competitions, location advantages." **"Things to Avoid:** Mushroom approach at local level and high-level overlaps at the stage, environmental degradation, unbalance between industrial development and social dimensions."

Facchini and Willmann (1999:403) indicates that in addition to FZ creates important pareto optimum effects on especially autarky countries, it is indicated that due to destroy the redistribution of property tax policy of this regime, also cause pareto failures. Hausman (1989:317-318) also indicates with the nearly same view; FZ is not perfect markets as they seem, they built a structure that prevents

"individual rationality" that one of the condition of perfect competition market. Because the power which pushes people to be realistic comes from behaviors that good analyzed each others' behaviors, but FZ prevents individuals' opportunity to watch each other.

It is clear that businesses established in FZ take advantage of FZ. In addition to this, while FZ supports businesses' positive activities, it will move them a higher level. Sberegaev (2005:78) summarize positive effects of FZ on the structure of successful business in that way: "It experienced an increase in production output by reducing the impact of taxes, competitiveness power increases thanks to the modernization of the production, businesses focus on making profit with the responsibility they carry."

Whether positive or negative effects of FZ on the country economy; when considered contributions to the development of the national economies and effects on the world trade facilitation, It can be predicted to lose FZs importance in world trade.

### 3. Free Regionalism in Turkey

First FZ applications in Turkey (if Ottoman Period excluded) appears in after-1980 period. With the date of June 15, 1985 and number 3218 Free Zones Law is the first significant step in this issue. According to Free Zones Law; trade between FZ and other parts of Turkey is subject to the foreign trade regime. On the other hand, trade regime does not apply between Free Zones with other countries and FZ.

After the Custom Union which created on December, 31 1995 between Turkey and EU, regulations in implementation of FZ is revised with the 4458 the Customs Law (Tümenbatur, 2012:348). According to adaptation to regulations of EU, 4458 Customs Law is changed with 18.06.2009 date and 5911 Law No. According to 5911 Customs Law, while Turkey is accepted in the custom borders, for the application of FZ import duties and trade policy measures are considered outside Turkey Customs Union, in addition to this not in free circulation goods are allowed to take advantage of the tax benefits in Free Zones (5911 Customs Law).

To observe the developments in Free Zones phenomenon, firstly FZ established where and when in Turkey until today can be take a look. Table 1 is constructed for this purpose.

**Table 1: Free Zones in Turkey and Establishment Dates**

FZ Number	Establishment	FZ Name	FZ Establishment Year
1		Mersin FZ	1985
2		Antalya FZ	
3		Ege FZ	1987
4		İstanbul Atatürk Airport FZ	1990
5		Trabzon FZ	
6		İstanbul Trakya FZ	
7		Adana Yumurtalık FZ	1992
8		İstanbul Industry and Trade FZ	
9		Mardin FZ	1994
10		Samsun FZ	1995
11		Avrupa FZ	1996
12		Rize FZ	
13		Kayseri FZ	1997
14		İzmir FZ	
15		Gaziantep FZ	1998
16		TÜBİTAK-MAM FZ	1999

## Look at Foreign Trade Relations of the Turkey - Russian Federation

17	Denizli FZ	2000
18	Bursa FZ	
19	Kocaeli FZ	

**Resource:** <http://www.ekonomi.gov.tr> , Access Date: 05.04.2015.

While first FZ in Turkey are activated in Mersin and Antakya in 1985, in 90s Free Regionalism approach for Turkey is drawing attention as the years given top priority (in this process is founded 13 FZ). Last additions to FZ in Turkey are Denizli, Bursa and Kocaeli FZ in 2000, no progress is observed in the context of the new establishment is registered for the past 14 years.

It's clear that FZ applications has/had a positive impact on employment policy of country economy. In this context, employment effects of FZ applications in Turkey in last 2 years (2013 and 2014) are evaluated in Table 2.

**Table 2. Free Zones Employment Data (2013 and 2014)**

Free Zones	Employment in 2013	Employment in 2014	Change Rate %
Ege	17 265	17 042	- 1,29
Bursa	7 940	9 271	16,76
Mersin	8 208	9 334	13,72
Antalya	3 710	4 478	20,70
İstanbul Industry and Trade	4 344	4 367	0,53
Kocaeli	1 398	1 358	-2,86
TÜBİTAK-MAM Tek.	2 699	1 416	-47,54
Avrupa	3 012	3 322	10,29
Kayseri	2 797	3 562	27,35
İzmir	1 471	1 543	4,89
İstanbul Trakya	1 576	2 047	29,89
İstanbul Atatürk Airport	1 185	1 246	5,15
Adana-Yumurtalık	758	1 877	147,63
Samsun	408	401	-1,72
Gaziantep	141	155	9,93
Trabzon	52	47	-9,62
Denizli	38	33	-13,16
Mardin	4	4	0,00
Rize	4	2	-50,0
<b>Total</b>	<b>57 010</b>	<b>61 505</b>	<b>7,88</b>

**Resource:** <http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070997>  
Access Date: 04.04.2015

Last two years of employment capacity of FZ in Turkey shows that the development of employment opportunities are unstable in these regions. While employment is increasing in 12 of 19 FZ, other 7 FZ have employment decrease. While a lot of employment opportunities increased in some regions (like Adana-Yumurtalık FZ - 147,63%), much reduced employment opportunities in some regions (Rize FZ - 50,0% and TÜBİTAK-MAM Tek. FZ - 47,54%) and in some regions employment capacity is constant (Mardin FZ - 0,0%).

Yılmaz and Çapraz (2013:83), in the study of FZ's employment performance in Turkey with the data envelopment model reached the result of that Ege, Bursa, İstanbul Atatürk Airport, İstanbul Industry and Trade, İzmir, Kocaeli, Mersin and TÜBİTAK-MAM Technology FZ come ahead in terms of



employment creation capability. On the other hand, 3 of these 8 FZ, İstanbul Industry and Trade and TÜBİTAK-MAM Technology FZ, couldn't use the potential of creating employment as of 2014, even at current employment levels also experienced the loss of blood.

FZ applications are known as having the ability to be able to make some impact to foreign trade volume of the country in which they are installed. In this context, the FZ's foreign trade volume of Turkey is evaluated in Table 3.

**Table 3. Total Foreign Trade Volume of FZ in Turkey (2002-2014) (in Thousands \$)**

Years	Foreign Trade Volume of FZ in Turkey	Percentage Change According to Previous Year
2002	11 102 596	33
2003	16 608 066	50
2004	22 110 402	33
2005	23 362 826	5,7
2006	23 824 028	2,0
2007	24 873 445	4,4
2008	24 578 055	-1,2
2009	17 756 883	-27,8
2010	18 572 206	4,6
2011	22 646 175	21,9
2012	23 053 135	1,8
2013	23 240 397	0,8
2014	22 432 242	-3,5

**Resources:** 1. Işık ve Çabuk (2007) "Serbest Bölgeler Vergi, Muhasebe ve Dış Ticaret Açısından", Maliye ve Hukuk Yayınları, Ankara, s.40.

2. Tümenbatur (2012) "Serbest Bölgeler ve Türkiye Ekonomisine Katkıları Üzerine Bir Değerlendirme", Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi, Cilt 21, Sayı 3, s.351.

3. Uzun ve Tıraş (2009) "Serbest Bölgelerin Ekonomik Etkileri: Kayseri Serbest Bölgesi İçin Bir Uygulama", Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, Sayı:26/1, s. 254.

4. <http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070996> Erişim: 04.04.2015

5. [www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date: 25.03.2015.

It's observed that foreign trade volume of FZ in Turkey always increases during 2002-2014 period except 2010 and 2014. The years have the biggest increase of FZ foreign trade volume is 2003 (50%) and 2002, 2004 (33%), they can be evaluated the scope of Transition to Strong Economy Program. With the year has decrement in the foreign trade volume 2009 (27,8%) value can be evaluated to related with the 2008 Global Finance Crisis. Decrease in 2014 (3,5%) can be associated with political and economic problems.

**Table 4. Foreign Trade Volume of Turkey Free Zones Foreign Trade (2002-2014) (in Thousands \$)**

Years	Foreign Trade Volume of Turkey FZ Foreign Trade	Percentage Change According to Previous Year *
2002	2 052 981	-
2003	2 517 178	22,6

## Look at Foreign Trade Relations of the Turkey - Russian Federation

2004	3 375 097	34,1
2005	3 733 284	10,6
2006	3 911 361	4,8
2007	4 196 605	7,3
2008	4 342 311	3,5
2009	2 922 353	-32,7
2010	2 962 235	1,4
2011	3 582 778	20,9
2012	3 340 761	-6,8
2013	3 680 693	10,2
2014	3 531 131	-4,1

**Resource:** [www.tuik.gov.tr](http://www.tuik.gov.tr) , Access Date: 25.03.2015. \* Percentage changes are calculated by me.

Turkey's foreign trade volume is carried out in FZ in Turkey in as many years did not show a complete stability. Although the upward trend until 2008, the effects of the 2008 crisis were reflected negatively on foreign trade in 2009. In addition to this, 2012 (6.8%) and 2014 (4.1%) decrease in trade volume in the year is noteworthy. In the post-2009, both FZ foreign trade volume and foreign trade volume exchange rate instability is available.

Evaluating the share of foreign trade in Turkey of FZ built in Turkey basis on the groups of selected countries is important for Turkey to reveal the location of the FZ trade. For this purpose, exports held Table 5, Table 6 also offers the possibility to make an assessment in terms of imports.

**Table 5. Distribution of Export of Turkey According to Selected Countries (in Thousands \$)**

Years	Total Export of Turkey	Country Group					
		Free Zones Export	Percentage in Total Exp.	EU Export (EU-28)	Percentage in Total Export	Other Countries Export	Percentage in Total Export
2002	36 059 089	1 478 477	4,1	20 457 907	56,7	14 122 705	39,2
2003	47 252 836	1 928 266	4,1	27 479 360	58,2	17 845 210	37,7
2004	63 167 153	2 563 637	4,1	36 698 919	58,1	23 904 597	37,8
2005	73 476 408	2 973 224	4,0	41 532 953	56,5	28 970 231	39,4
2006	85 534 676	2 967 219	3,5	48 148 628	56,3	34 418 829	40,2
2007	10 7 271 750	2 942 876	2,7	60 754 022	56,6	43 574 852	40,6

2008	13 2 027 196	3 008 061	2,3	63 719 097	48,3	65 300 038	49,5
2009	10 2 142 613	1 957 066	1,9	47 228 119	46,2	52 957 428	51,8
2010	11 3 883 219	2 083 788	1,8	52 934 452	46,5	58 864 980	51,7
2011	13 4 906 869	2 544 721	1,9	62 589 257	46,4	69 772 890	51,7
2012	15 2 461 737	2 294 934	1,5	59 398 377	39,0	90 768 426	59,5
2013	15 1 802 637	2 412 824	1,6	63 039 810	41,5	86 350 002	56,9
2014	15 7 642 154	2 270 360	1,4	68 529 094	43,5	86 842 700	55,1

**Resource:** [www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date 25.03.2015

Turkey's exports in the period 2002-2014 it is noticeable that there was an increase in terms of volume. Same improvement in terms of exports carried out can be observed between FZ, EU-28 and Other Countries. Scope of Strong Economy Transition Program of Turkey, the increasing trend in exports in the first drop after 2002 were found in 2009 (effects of global crisis from USA at the end of the 2008), and this trend was followed by second decline in 2013. Exports decline in 2009, it is observed in terms of the examined countries groups. But more remarkable development is that share of export with Other Countries increases beside of declining export share of the EU-28 countries and FZ in Turkey's export.

**Table 6. Distribution of Import of Turkey According to Selected Countries (in Thousands \$)**

Years	Total Import of Turkey	Country Group					
		Free Zones Import	Percent age in Total Import	EU Import (A B-28)	Percent age in Total Import	Other Countries Import	Percent age in Total Import
2002	51 553 797	574 504	1,1	25 698 221	49,8	25 281 072	49,1
2003	69 339 692	588 912	0,8	35 156 836	50,7	33 593 944	48,5
2004	97 539 766	811 460	0,8	48 130 900	49,3	48 597 406	49,9

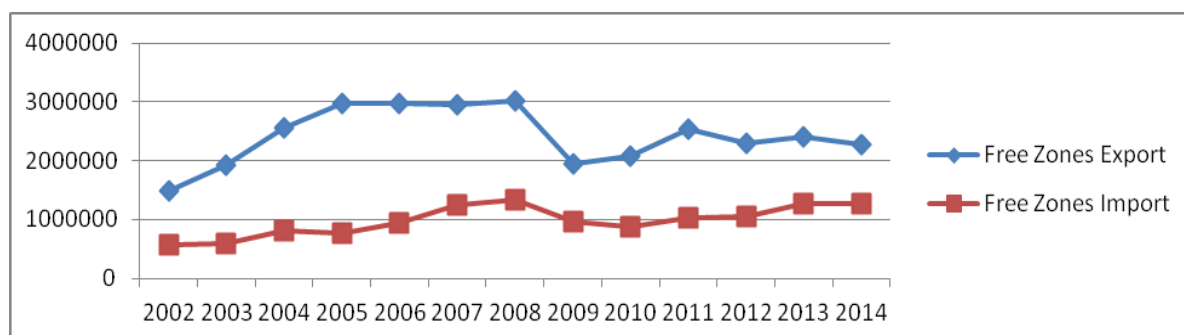
## Look at Foreign Trade Relations of the Turkey - Russian Federation

20 05	11 6 774 151	760 060	0,7	52 781 362	45,2	63 232 729	54,1
20 06	13 9 576 174	944 142	0,7	59 447 587	42,6	79 184 445	56,7
20 07	17 0 062 715	1 253 729	0,7	68 472 309	40,3	100 366 676	59,0
20 08	20 1 963 574	1 334 250	0,7	74 513 444	36,9	126 115 880	62,4
20 09	14 0 928 421	965 287	0,7	56 616 302	40,2	83 346 833	59,1
20 10	18 5 544 332	878 447	0,5	72 391 053	39,0	112 274 832	60,5
20 11	24 0 841 676	1 038 057	0,4	91 439 406	38,0	148 364 213	61,6
20 12	23 6 545 141	1 045 827	0,4	87 657 462	37,1	147 841 852	62,5
20 13	25 1 661 250	1 267 869	0,5	92 457 992	36,7	157 935 389	62,8
20 14	24 2 182 754	1 260 771	0,5	88 783 685	36,7	152 138 297	62,8

**Resource:** [www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date 25.03.2015

Between the years 2002-2014, there was an increase in terms of volume of imports is noteworthy. Same improvement in terms of exports carried out can be observed between FZ, EU-28 and Other Countries. Scope of Strong Economy Transition Program of Turkey, the increasing trend in imports in the first drop after 2002 were found in 2009 (effects of global crisis from USA at the end of the 2008), and this trend was followed by second decline in 2012. Import decline in 2009, it is observed in terms of the examined countries groups. But more remarkable development is that share of import with Other Countries increases beside of declining import share of the EU-28 countries and FZ in Turkey's export. This weight change that Turkey imports experienced based on groups of countries takes place in the same way with change in export, although imports have been larger. (For more information on this subject, see Table 1).

2002-2014 period, the trend of change of FZ exports and imports in Turkey can be better understood with the aid of Figure 1.

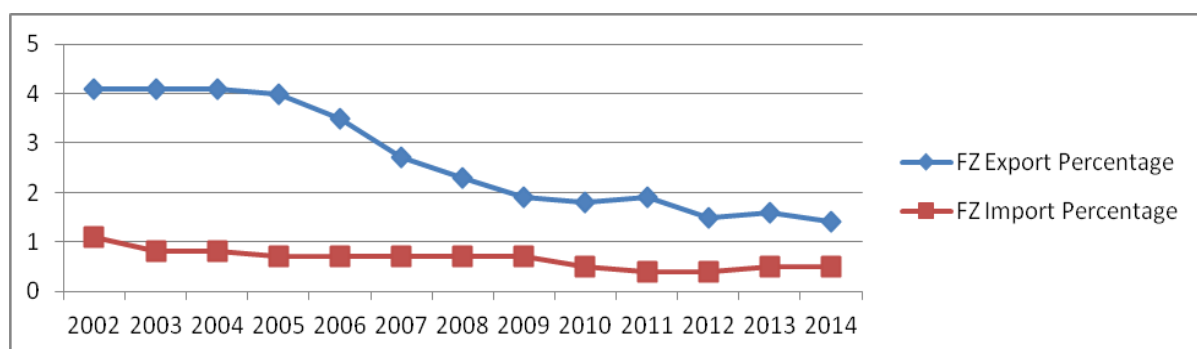


**Figure 1. Improvement of Foreign Trade in Turkey FZ was Performed in Turkey Foreign Trade (in Thousands \$)**

Showing an increase in the range of 2002-2005 Turkey-FZ export value, stagnant between 2005-2008 and declined in 2009. Increase and decrease motions until today have been observed beside of try to has increase trend again by heal itself after this year.

Showing an increase and decrease trend in the range of 2002-2005 Turkey-FZ import value, has increasing trend between 2005-2008 and decreases from 2008 to 2010 continuously. But this unstable improvement has continued to follow each other after 2010. Acceleration of the development of foreign trade in Turkey's foreign trade with Turkey SB, % change in this trade 's help can be traced on the basis of the Figure 2.

Acceleration of the foreign trade development in Turkey's foreign trade with Turkey FZ, percentage change in this trade's can be traced on the basis of the Figure 2.



**Figure 2. Percentage Change of Free Zones Export in Turkey Foreign Trade**

Years and years of declining share of export and import performed in Turkey FZ inside total export and import of Turkey Figure 2 represents itself in fairly good manner. This figure while emphasizes the supremacy of exports to imports against FZ (between 2002 and 2005) in the early 2000s, also shows redundancy between exports and imports shrank as the years because of the decreasing export after 2005.

#### 4. Conclusion

Whether potential effects of FZ on the national economy are either positive or negative; foreseeable that these formations will not lose its importance in world trade. As Sberegayev (2005:78) indicates, FZ in the country established is mediated; to provide regional social and economic development, to raise the living standards of the population, establishment of trade, economic, scientific and technical association, thanks to foreign capital, specialization in management, progress in technology, an increase in export capacity creation. Economies which can move to the next level to efficiency and quality in the globalized economy can take advantage to gain competitive edge in foreign trade.

International economic foundations, especially GATT/WTO take important roles on the feature of FZ can be estimated. Because customs tariff is greatly reduced thanks to this international organization, even in many areas it has been reset. EU creates similar effects among members in regional perspective.

Establishment of FZ perspective of Turkey is observed between the years 1985-2000. After the entering the Customs Union process between Turkey and EU, for the elimination of a number of uncertainties on the FZ, regulations were carried out on FZ and Customs Law. On the other hand, with the enactment of the Transition to Strong Economy Program in Turkey after 2002, narrowing the advantages of FZ activities in Turkey is limited. After the 2002, FZ applications in terms of foreign trade experience of Turkey this negative change in the results of our work is quality support.

As well as reduction of the value of exports and imports that performed with FZ in the values of Turkey exports and imports, the value of exports and imports carried out with the EU is observed that the decrease since 2002. Turkey foreign trade had a change in 2 ways after the Customs Union carried out with EU can be said: First one is that FZ applications lost its previous worth. Secondly, foreign trade direction shifts to non-EU contrary to expectations and the trade creation effect of integration entered remains weak.

While FZ is used as a tool to economy and foreign trade policy for Turkey, Customs Regime property is showed for the EU. In this sense, regulations to be made EU integration process should be more accurate within the realization of this vision. It is clear that Turkey which is in the developing country statue needs to increase the level of development with the help of positive effects of FZ. In this sense, it is a necessity to increase the attractiveness of the existing FZ.

## 5. References

Ay, Sema (2009) "The Economical Impacts of Free Zones: The Estimation in terms of Trade Volume, Employment and Foreign Capital of Free Zones in Turkey and Bursa Free Zone" "İŞ, GÜÇ" Endüstri İlişkileri ve İnsan Kaynakları Dergisi "IS, GUC" *Industrial Relations and Human Resources Journal*, Temmuz/July 2009 - Cilt/Vol: 11 - Sayı/Num: 04, 33-46.

Facchini, Giovanni and Willmann, Gerald (1999), "The Gains from Duty Free Zones", *Journal of International Economics*, Vol. 49, Is. 2, December-1999, pp.403-412.

"Gümrük Kanunu İle Bazı Kanun Ve Kanun Hükmünde Kararnamelerde Değişiklik Yapılmasına Dair Kanun", Kanun No. 5911, Kabul Tarihi: 18/6/2009, <http://www.resmigazete.gov.tr/eskiler/2009/07/20090707-1.htm>, Erişim Tarihi: 21.05.2015.

Hausmann, Daniel M. (1989), "Are Markets Morally Free Zones?", *Philosophy & Public Affairs*, Vol.18, No.4, Autumn-1989, pp. 317-333.

İşık and Çabuk (2007) "Serbest Bölgeler Vergi, Muhasebe ve Dış Ticaret Açısından", Maliye ve Hukuk Yayınları, Ankara.

Sbergaev, Nikolay (2005), "Local Free Economic Zones: New Approach and New Opportunities", *Engineering Economics*, Vol. 41, No. 1, Urgent Issues, pp-74-79.

Thoman, R.S., (1956) *Free Ports and Foreign Trade*, Cornell Maritime Press, Cambridge.

Tümenbatur, Atiye (2012), "Serbest Bölgeler ve Türkiye Ekonomisine Katkıları Üzerine Bir Değerlendirme", *Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi*, Cilt 21, Sayı 3, ss. 339-356.

Uzay, Nisfet and Tıraş, H. Hayrettin (2009) "Serbest Bölgelerin Ekonomik Etkileri: Kayseri Serbest Bölgesi İçin Bir Uygulama", *Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, Sayı:26/1, ss. 247-277.

Yılmaz, Ayşegül and Çapraz, Kürşat (2013), "Comparison of Free Zones in Turkey by means of DEA", *Data Envelopment Analysis and Performance Measurement*, Proceedings of the 11th International Conference of DEA, June, 27-30 2013, pp. 77-84.

Zeng, Douglas Zhihua (2015) "Global Experiences with Special Economic Zones: Focus on China and Africa" Policy Research Working Paper 7240, April 2015, pp. 1-24.

<http://www.ekonomi.gov.tr> Access Date: 05.04.2015.

<http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070997> Access Date 04.04.2015.

<http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070996> Access Date: 04.04.2015

[www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date 25.03.2015



# Kosovo Liberation Army in the International Discourse

Besim Qeriqi

## Historical Background of Yugoslavian Crisis

Kosovo was exactly the place “of fire” where the Yugoslavian crisis started by the end of 80’s. The violence, persecution, followed by repression exercised systemically by the Milošević regime against the majority population of Albanians, was hardening life so much to the point that nearly everything’s was taken and denied: starting with the suppression of autonomy; denial of human rights; closure of schools – Universities; dissolution of industrial and commercial life, etc. This expansion of Serbian political power was already concerning enough for other Yugoslavian population, fearing that they too could be subjects of such violence in the near future. Moreover, the arrival in power of Serbian ruling nationalists with their leader Slobodan Milošević was in itself a strong signal that the process of dissolution of Yugoslavia was near – but the issue remained *how* and with *which* consequences? The consequent events where unfolded with its bloody wars between Serbians, Croats, Bosnians, with its misfortune anamnesis for the Kosovo Albanians –which where the prime goal of attack by the Miloševićanism’s regime. Under such inescapable circumstances, the majority of Kosovo Albanians following the leadership of Ibrahim Rugova – at the time leader of the Democratic League of Kosovo (LDK), the only political party representing the Albanian part, followed a nonviolent opposition to the regime. This opposition was followed by a mass boycott of the Serbian Institutions. The main argument that followed the nonviolent opposition was that: given the certain circumstances that Kosovo Albanians where facing within the Yugoslavia and with the latest suspension of all former Security Forces – without a police department and constitution of an army of defense – entering any possible conflict with the Serbian part would be of an completely unequal measure and would greatly damage the Kosovo Albanian population.

## Methodology

This paper is designed to review the literature from the critical research approaches of international authors who have written about the Kosovo Liberation Army. References include publications of memoirs, newspapers and magazines, which were published from 1998 to 2018.

## The Initiation of the Idea of Resistance

In the history of political thought, the term Resistance could be brought up as a very beneficial phrase which serves (initially) the purpose of unification of individuals and (secondly) the angry groups which have a united goal of acting disobediently to the invaders. When talking about the case of Kosovo, these group formations that where implying resistance where growing from day to day. In this given context we will exclude the former moments of initiation of the various radical resistive fractions on the way that Kosovo has experienced in the XX century, starting from the 60’s-80’s which are considered to be the inspiration and creative force of the movement which later on 90’s will be known as Kosovo Liberation Army (KLA).

Accordingly to the given circumstances, international authors an important role in the creation of KLA have attributed to the left-winged organizations with Enver Hoxha ideologies, that concentrated their activities mainly in Diaspora behind whom was operating the Popular Movement for Kosovo (PMK), (Judah, 2008). In the given reality of isolation in which Kosovo was situated until the end of 90’s the dilemmas for the constitution of an armed resistance which would lead to the realization of the goal for independence where enormous. Perhaps rightfully, the question was raised whether this small military group that named itself as the Kosovo Liberation Army which in its initiation process constituted no more than fifty (50) individuals, could resist an army which was already known as one of the most powerful in Europe? Although, historically proved, excessive violence always pushes to new paths of liberation, in this context also, a generally accepted conclusion was that the option of entering in an armed conflict was a forced choice for Kosovo Albanians in order to gain international attention.



In this context, as was also pointed out by the region's connoisseurs of the matter, the international eye has been blind to the warnings of observers, western journalists, who through their reports were launching the announcement of a new war in Balkans – Kosovo.

### **Factors that Contributed to the Rise of the Kosovo Liberation Army (KLA)**

The international approach throughout years was desperation for Kosovo Albanians which continually gave space to the Albanian Nationalist movements to take concrete steps of establishing the Kosovo Liberation Army for which international authorities have listed several factors which would eventually lead to geostrategic changes in Balkan:

First, the disappointing decision came when Kosovo didn't gain the deserved support of the Yugoslav state legacy conferences initially at The Hague and the same treatment it gain later in London. The following international argument was that Kosovo and other parts of Vojvodina were not recognized as a sovereign part of the Yugoslav Federation and were therefore not recognized as a legacy part in the Yugoslavia (Petritsch & Pichler, 2002). While Oliver Schmitt (2012) goes further with his conclusion: Many Western Prime ministers and their Foreign Affairs Ministers perceived Kosovo as an integral part of Serbia emphasizing the status of autonomous region and not that of a republic with its right of independence. Richard Caplan (2005) had concluded that these concessions formed a deep disappointment for Kosovo Albanians, as he argues that the peak of the disappointment was experienced on November 1995 when the Kosovo issue was not included in the negotiations of the Dayton's Conference, where the end of the Bosnian war was declared and the dissolution of Yugoslavia was destined. The exclusion of Kosovo in the Dayton Conference caused Kosovo Albanians, besides disappointment, to draw conclusions among which were: the issue of Kosovo can never be solved by peaceful means; the only option foreseeable from now on was an armed conflict - an alternative which was followed by other republics also.

Secondly, it is the case of year 1997 when Albania was involved in a massive internal reaction followed by riots all over the country the result of which was entropy of the Albanian state. According to Stacy Sullivan (2009), the chaos in Albania gave the KLA two vital prerequisites to develop a successful guerilla uprising: it was a great shelter, as well as was giving access to weapons.

Thirdly, another deterministic factor for the establishment of KLA was the liberalization of the laws that existed in the Western countries, a fact that created a very suitable environment for getting organized, which the strategic leaders of the KLA not only did utilize it well enough to raise the funds so much needed for creating a liberalization army such as KLA itself.

And fourthly, thanks to the factorization of the KLA, the international attention began to increase in the region. As the two American authors Ivo H Daalder & Michael E O'Hanlon (2000) point out, the geographical distribution of Albanians in many counties (Albania, Greece, Macedonia and Yugoslavia) had caught a serious attention of the West because any nationalist action of any of the parts would cause a major disturbance for the neighbors of Kosovo.

### **Kosovo Liberation Army in Reality**

Who in reality was KLA? – Perhaps the simplest answer was the organization of the strong historical will of Albanians population to be free and independent. Primary articulated by a small group of people, which within a short period of time will win the admiration of the entire Albanian nation. Its main goal was the national liberation from the Serb-Yugoslavian regime. Judging from a time perspective, its beginning was pretty mysterious, little was known about it and its leader. In this given context there was also no lack of different epithets for it. In some cases it was also called as newborn of the Serbian secret service. This had raised dilemmas among the population, regarding of who in reality stands behind those military formations who through various releases were taking the responsibility for attacks that were being made mainly against the forces of Serbian police. But the truth was posed otherwise: behind then there were radical groups of Albanians in Diaspora who were leading the activities of KLA. However the full consolidation of the KLA remained a challenge, dealing with risks, persecutions, constant arrestments by the regime made it ever difficult and slowed down the process of recruitment and increase of the organization capacities. Faced with such day to day challenges the leaders were

obliged to develop their activities in two directions: in policy making (organizational, financial and logistics) tasks excreted by the “plan makers in exile”; and “home defenders” who initially developed their activity mainly through strategic attacks of the type “attack and withdraw”, events such as these which at the time were occurring illegally.

### **Kosovo Liberation Army's First Public Manifestation**

The final dilemma for the existence of military formations of KLA was coordinated to be the 28th of November – the day of the Albanian national flag. Those days Halit Geci, a renewed history teacher, was murdered by Serbian police officers. His burial was scheduled at 28th of November to be attended by over 20.000 citizens of the region of Drenica. Suddenly, before the gathered crowd of citizens will appear for the first time publicly three uniformed men (M.K., R.S., and D.H.) two of whom appeared openly and one masked (R.S.) and was initially the reader of a short presenting speech: “*Serbia is massacring Albanians. The Kosovo Liberation Army is the only serious force fighting for the realization of ideals. The KLA has been in forefront of the war for liberation of Kosovo for four years. We will continue to fight.*” (Judah, 2002). Such a message seems to have been missing to the Drenica's population as they welcomed it with applause and ovations “KLA! KLA!” Given the context, it can be concluded that in this way KLA achieved greatly to succeed in affirming its goals that thought armed reaction to internationalism the Kosovo crisis initially in the media tic realm and then also politically. In the events that followed in passing years, especially throughout 1998-1999 made that the dilemmas that existed for the leadership opportunities of the KLA where now seen as the only hope turning into a massive population support and becoming the foundation of the Albanian resistance. This time it was not a small group of soldiers, but an entire army that was consolidating however without any prior military practice but with courage and a moral ideal of liberty that contained the patriotic spirit for which KLA soldiers were willing to die for their national cause (Perritt Jr., 2008). But the rise of the KLA was not welcomed to Milošević his basic strategic known goal was to maintain control over Kosovo. This was thought to happen through changing the demographic balance by expelling the Albanian population as an early project designed by Ilia Garashanin and passed on to Vasa Čubrilović and lately attempted to implement it by himself. But to achieve this goal now was also in the way KLA which had already began to bring great trouble on the field.

### **The International Debate**

As a “green light” for this action was taken the declaration of the US envoy for the Balkans, Robert Gelbart, who after a visit paid to Kosovo on 23th of February 1998 condemned the growing violence, thus, makes a very fierce critic towards the KLA: “*We strongly condemn terrorist actions in Kosovo. The KLA is surely a terrorist group.*” (Sebak, 1998). Such a statement, which posed more as a personal momentum of approach towards the KLA nevertheless caused a lasting impact on the reputation of KLA. As Dario Malnar (2013), from further analysis of international community reports, “in all” relevant documents that followed KLA was characterized as a terrorist organization. This gave space to the KLA critics to make denigrating writings about its activity. For example, the former Prime minister of Russia Yevgeny Primakov mentioned the cause of extreme agitation in the region as dating back from the beginning of the year 1998 after the attack of a terrorist group named Kosovo Liberation Army against a Serbian police patrol. Since then, the official Moscow used all of its mechanisms especially to alert about the danger posed by, as they called them, the “Islamic Albanian Terrorists” (Primakov, 2004). Such a conclusion is also found in the writings of the director of the Institute of Slavic Studies in Moscow, Prof. Dr. Vollkov (Vukaj, 2007), according to whom the KLA has, since its establishment, exposed herself as a terrorist organization with political goals. These findings are dismissed by the close connoisseur of KLA, Henry H. Perritt Jr. According to Perritt (2008), the KLA did not use its opportunities to make terrorist attacks upon the Serbian civilians residing in Kosovo. It also won relatively few battles against the opposing military forces.

However, the declaration of Gelbart, Belgrade's Government had interpreted it as a signal that the KLA terrorist group could use its entire means without the fear of being criticized by the West. In the pursuit of this goal, he launched an offensive towards the center of Kosovo. This time the target

was Drenica region, the place where the KLA had formed its first cells and had appeared publicly for the first time, concretely in the Lower Prekaz village, where on 5<sup>th</sup> of March 1998, after a heroic resistance in the defense of their own home there were killed 56 Kosovo Albanians, most of which were children, women and elderly among whom was also one of the leaders of KLA – Adem Jashari with his family. In this case the purpose of Serbian regime was clear, that through the use of force, murder, intimidation and elimination of the KLA to restore the peace in Kosovo. And what did they accomplish? They lost Kosovo. In truth they've won the battle, killing nearly all the tribe of Jashari families, but they did not succeed in accomplishing their major goal. On the contrary the population's reaction was expanding, turning this events in a motive to follow their path and at the same time expand the KLA's growth in international dimensions, which influenced the change of political discourse of the international community tuning the KLA from a terrorist group into, as it was perceived months ago, negotiating parties to resolve the Kosovo problem. According to James Pettifer (2004) this was a great achievement, as how the KLA succeeded in many things that many other democratic movements in Balkan had not achieved, gaining a public support from the largest military alliance in the world – NATO. Since this time, the communication between the international realm and KLA leaders had started to increase, accentuating those of Americans who were interested that a part of the political discussions for the resolution of the Kosovo conflict to be also the KLA, as an armed part of the conflict, acknowledging the fact that any agreement without its consent could not provide stability. In other words, a commanding address was required that would take the responsibility of taking permanent decisions in the name of the organization. Initially it was discussed about secret communications that were happening between the Americans and representatives of the KLA. In this regard it is worth mentioning the meeting of Richard Holbrook in Junik region, one of the most important strategic points of the KLA. This event was interpreted as an acceptance of the KLA by the USA and as such produced significant political consequences (Malnar, 2013). On the other hand, in the following months the fighting was increasing. This raised the number of innocent civilians that were forced to flee from their homes. This fact had undoubtedly disturbed the international community which felt forced to activate field diplomacy for the solution of the problem. This situation was best reflected in the October agreement between Holbrook and Milošević whose content did not promise a secure and peaceful future in the region, or as some international diplomats put it, the intention was to "buy time" in order to allow the diplomacy to act more seriously. There was some pessimism indicated from the western leadership in the implementation of the agreement from the Milošević. For Joschka Fischer (2007), ex Germany's Minister of Foreign Affairs, the deal at stake had its weaknesses as per fact that KLA was not involved in it. As expected from many people informed on the issue, the situation began to escalate. For the official Moscow the main responsibility for this was the KLA who were trying to fill the "gap", after the withdrawal of Yugoslavian forces of security, thus accusing Kosovo Albanians that their developed actions were posing the major difficulty in initiating negotiations. (Lauka, Ymeri, 2012). Further, as expected by many, the situation that led to the decisive escalation happened on 15<sup>th</sup> January 1999 in the Reçak village in proximity of the municipality of Shtime. In order to verify that what was speculative about the event, in the crime scene had gone the Chief of OSCE Kosovo Verification Mission, William Walker, who was accompanied by a large number of journalists. Decisively the Mission came to the conclusion that - the number of the killed people was 45, among whom one child and three women, for which the Chief KVM would point out: *"All that I have seen are elderly men whom most certainly are villagers, simple and suffering people. None of them was clothed differently rather in a civil manner, no signs uniforms or weapons was noticed..., I don't have words to express my personal anger..., in front of a scene that could be described as an inexplicable crime, although I am not a lawyer but from that I personally have seen I do not hesitate to describe the event as a massacre, a crime against humanity. Also I do not hesitate to condemn the governmental forces of security for their responsibility."* (Walker, 1999).

While in the Serbian perspective, the whole event was staged by the KLA, making a scene of a fake massacre. In few hours, the pictures of the event in Reçak were distributed worldwide, making it as the prominent event in international press. Madeleine Albright (2003) in her recollections mentions that she had heard the news through radio in the early morning hours. Concerned about the act, she recalls that she had spent the whole Saturday, 16<sup>th</sup> January 1999, talking on the phone with half of the world

about the immediate steps to be taken. To end the conflict once and for all, the Foreign Affairs minister of the Contact Grouping the meeting held in London on 29<sup>th</sup> of January 1999, agreed to convene an International Conference about Kosovo which would be similar to that of Dayton which was held about Bosnia and Herzegovina case. The international demand was that –the parties in conflict – Serbians and Kosovo Albanians to be called ultimately in the Conference which would start on 6<sup>th</sup> of February 1999 in the Rambouillet Castle in France. From the very beginning the delegations would be made clear to the consequences that would be upon the part that would refuse to sign the agreement. For the Albanian part, with a particular emphasis on the KLA the consequences would be: first of all, actions would be taken to stop the flow of Diaspora funds, especially from USA, Germany and Switzerland who in essence posed as the major funding area for the KLA; secondly, the international presence would make further pressure in Albania and Macedonia for the purpose of monitoring the borders that would lead to termination of trainings, weapon supplies to KLA; thirdly, efforts will be put to end the supporting network in Diaspora, then the KLA would be officially recognized as a terrorist organization and would face juridical treatment as such; and fourthly, which seemed the most threatening one, in case that Kosovo would refuse the Rambouillet project, the NATO states including the USA would declare that the situation is hopeless and would withdraw from the Kosovo crisis (Weller, 2009). Despite the hesitation on both sides, the issue that aroused a certain level of pessimism among internationals was the composition of the delegations (especially the Serbian part) with the differences in representation being too big, as Tim Judah (2002) would call it – such as day is different from the night.

While in the composition of the Kosovo delegation, there were more influential personalities in the political-military realm, civil society in the last decade who as the leader would be named one of the KLA representatives –Hashim Thaçi. On the other side, the composition of the Serbian delegation was at the level of legal experts and politicians, but neither had any real influence on the decision making, as decisions in Serbia were taken by one man which was not part of the delegation (Judah, 2002). In essence, two were the most fundamental issues that could lead to non-agreement between the delegations: the persistence of Kosovo Albanians in the right to hold a referendum after a three year transitional period; the Serbians part of categorical refusal of an international presence such as NATO's peace keeping forces in Kosovo. After lengthy discussions of continued pressure from international negotiators, the parties were not finding a solution. Thanks to the direct intervention in the process of the US secretary Albright, the Albanian delegation agreed to sign the agreement in principle.

On the other hand, the willingness of the delegation to sign the agreement was welcomed by the international community, which made the whole focus intensify on the Yugoslavian leaders. This time things were very clear for the parts that were about to refuse the agreement. In order to persuade the Yugoslavian leaders to sign the agreement, the Belgrade through the March of 1999 had taken the character of a diplomatic pilgrimage – being visited by many international diplomats. Despite the incessant efforts, when the Kosovo Albanians had signed the agreement in Paris, the willingness of Belgrade for cooperation was very low. The Yugoslavian leadership had finally made its decision which was confrontation with NATO forces. On 24 March 1999, approximately on the 20:00 p.m. the intensified threats became reality, NATO's air forces had attacked Serbian positions, attacks that would last for 78 consecutive days, enough as to make the Yugoslavian leadership surrender.

## Conclusion

The Kosovo Liberation Army's fight was a clear reflection of the centuries-old desire of Kosovo Albanian people for freedom and independence. Thanks to the ideal of liberty and the people's organized effort, the Kosovo crisis achieved to gain international attention where in her defense came the most powerful states such as USA and military forces such as NATO, where in collaboration with KLA ended the Serbian regime in Kosovo.

## References

- Albright, M. (2003). *Zonja Sekretare* (Autobiografi) (Madam Secretary), (pp. 458-459) "DUDAJ", Tirana
- Caplan, R. (2005). *Europe and the Recognition of New States in Yugoslavia*, (p.140) "Cambridge" New York
- Daalder, I & O'Hanlon. (2000). *Winning Ugly: NATO's War to save Kosovo* (pp. 22-23) "Brooking Institute Pres", Washington D.C,
- Fischer, J. (2007). *Vitet kuq-gjelbër Politika e jashtme gjermane nga Kosova deri më 11 shtator*, (Die rot-grünen Jahre: Vom Kosovo krieg bis zum 11. September) pp. 116-117 "KOHA", Prishtinë
- Judah, T. (2002). *Kosova luftë dhe*, (Kosovo: War and Revenge), (pp. 173-246-247) "KOHA", Prishtinë; Koha Ditore, 16.06.1998, (p.7) Koha Ditore, 17.01.1999
- Judah, T. (2008). *Kosovo: what everyone needs to know*, (pp. 76-77)"Oxford" New York
- Lauka, I & Ymeri, (2012). *Antologjia e Kryqëzimit Rusia dhe Çështja shqiptare* (1878-2012), (Anthology of Crusification, Russia and the Albanian affairs), (p.64) "Universiteti Iliria" Prishtinë-Tiranë
- Malnar, D. (2013). *SHBA-ja dhe Kosova*, (USA and Kosovo), (pp. 151 -166) "KOHA", Prishtinë
- Perritt Jr. H. (2008). *Ushtria Çlirimtare e Kosovës, Rrëfim prej Brenda për një kryengritje*, (Kosovo Liberation Army the inside Story of an Insurgency), (pp. 96- 8-9) "KOHA" Prishtinë
- Petritsch, W & Pichler. (2002). *Rruga e gjatë në luftë, Kosova dhe Bashkësia Ndërkombëtare*, (Kosovo-Kosova. Der lange Weg zum Frieden.) 1989-1999, (pp. 76-77 – 254) "KOHA", Prishtinë
- Pettifer, J. (2004). *Expressi I Kosovës*, (Kosovo's Express), (p. 358) "LIRIA", Prishtinë
- Primakov, P.(2004). *Russian Crossroads*, (p. 182) "Yale University Press" London
- Schmit, O. J. (2012) *Kosova – Histori e Shkurtër e një Treve Qendrore Ballkanike*, (Kosovo – A brief history of a central region in Balkan) (p. 252) "KOHA", Prishtinë
- Sebak, N. (1998). *The KLA – Terrorists or Freedom Fighters* BBC 28 June 9-  
[/http://news.bbc.co.uk/2/hi/europe/121818.stm](http://news.bbc.co.uk/2/hi/europe/121818.stm) last reviewed on 15.11.2015
- Sullivan, S. (2009). *Moskifrikë, se ikedjemtënë Amerikë, Si e futi pullazxhiu Amerikën në luftën e Kosovës*, (Be Not Afraid, for You Have Sons in America: How a Brooklyn Roofer Helped Lure the U.S. into the Kosovo War)(p. 158) "KOHA", Prishtinë
- Vukaj, Sh. (2007). *Rusia&Kosova*, (notes of a diplomat), (p. 435) "EnrikoKuco", Tiranë
- Walker, W.<https://www.pbs.org/wgbh/pages/frontline/shows/kosovo/interviews/walker.html> last reviewed on 20.11.2015
- Weller, M. (2009). *Shtetësia e kontestuar, Administrimi ndërkombëtar i luftës së Kosovës për pavarësi*, (Contested Statehood: The International Administration of the Kosovo's Struggle for Independence), (pp. 210-211)"KOHA", Prishtinë.

# Free Zones and Place in Foreign Trade of Turkey

Nurdan Kusat

## 1. Introduction

Beginning of developments in the understanding of free regionalism in the world goes back to about 2000 years. In Turkey, developments in this case take place on the agenda with implementation of the open economic policies and export-led growth concept after within the framework of January 24, 1980 Decisions. With the date of June 15, 1985 and number 3218 Free Zones Law, it became an official identity in Turkish foreign trade. Nowadays, founding goals of FZ do not reveal many differences in terms of both Turkey and global economies.

In the broadest definition of FZ; accepted the outside of the custom line while within the political boundaries, legal and administrative arrangements which apply in the country in the commercial, financial and economical areas not implemented or partially implemented, the recognition of broader incentives for industrial and commercial activities, places where physically separated from other parts of the country (Uzay ve Tıraş, 2009:248).

In this study, giving place to FZ's development in the world briefly, positive and negative consequences for the economy of the country is assessed on the basis of this understanding literature. After that, Free Zones' position in Turkey's foreign trade had been demonstrated both theoretical and numerical datum. In the conclusion part, within the framework of data which collected and analyzed, decrease of Free Area Trade in the part of Turkey's foreign trade year by year is discussed with the reasons and solutions are being sought to be created.

## 2. Development of Free Zones Understanding

First applications of FZ's had been encountered in ports with heavy use of property in the inland seas like Mediterranean Sea. Thoman (1956:14) mentions about that impact of Merchantilism on the commercial in parallel with Free Port and FZ's importance is increasing rapidly and increases it's effectiveness involving the Far Eastern ports. After 29 Depression, FZ applications began to lose its popularity to a certain extent with the protectionist policies take place of the liberal policies. As Ay (2009:35) indicated; it has been observed that as of 1934 USA had started to establish Free Foreign Trade Regions, and with this method it had been tried to prevent the contraction in international trade.

From FZ approach first emerged to until today has been exposed to a number of changes in the process is natural. All kinds of storage, production, assembly, disassembly, research and development, packaging activities have become can be made in the FZ. This development in FZ's functions increased the kinds of FZ. Ay (2009:34) refers to this species of FZ as follows: "Duty-free zones, free economic zones, industrial free zones, free trade zones, free processing zones, free export zones, export free zones, export processing zones, investment promotion zones, free ports, free banking zones or off-shore banking, free insurance zones, free enterprise zones, free gambling zones and free medical zones are free zones which are all products of the same idea and thus very similar to one another; but differ from each other in terms of the scope of activities carried out within them."

In Zeng (2015:7-10)'s study which he describe "Special Economic Areas", he evaluates what developing countries to do about FZ and what behavior they should avoid in detail way. **"What to do:** Land reforms, investment incentives and institutional autonomy, foreign direct investment, technology learning, innovation, upgrading and strong links with the domestic economy, Innovative cultures, clear objectives, benchmarks and competitions, location advantages." **"Things to Avoid:** Mushroom approach at local level and high-level overlaps at the stage, environmental degradation, unbalance between industrial development and social dimensions."

Facchini and Willmann (1999:403) indicates that in addition to FZ creates important pareto optimum effects on especially autarky countries, it is indicated that due to destroy the redistribution of property tax policy of this regime, also cause pareto failures. Hausman (1989:317-318) also indicates with the nearly same view; FZ is not perfect markets as they seem, they built a structure that prevents

"individual rationality" that one of the condition of perfect competition market. Because the power which pushes people to be realistic comes from behaviors that good analyzed each others' behaviors, but FZ prevents individuals' opportunity to watch each other.

It is clear that businesses established in FZ take advantage of FZ. In addition to this, while FZ supports businesses' positive activities, it will move them a higher level. Sberegaev (2005:78) summarize positive effects of FZ on the structure of successful business in that way: "It experienced an increase in production output by reducing the impact of taxes, competitiveness power increases thanks to the modernization of the production, businesses focus on making profit with the responsibility they carry."

Whether positive or negative effects of FZ on the country economy; when considered contributions to the development of the national economies and effects on the world trade facilitation, It can be predicted to lose FZs importance in world trade.

### 3. Free Regionalism in Turkey

First FZ applications in Turkey (if Ottoman Period excluded) appears in after-1980 period. With the date of June 15, 1985 and number 3218 Free Zones Law is the first significant step in this issue. According to Free Zones Law; trade between FZ and other parts of Turkey is subject to the foreign trade regime. On the other hand, trade regime does not apply between Free Zones with other countries and FZ.

After the Custom Union which created on December, 31 1995 between Turkey and EU, regulations in implementation of FZ is revised with the 4458 the Customs Law (Tümenbatur, 2012:348). According to adaptation to regulations of EU, 4458 Customs Law is changed with 18.06.2009 date and 5911 Law No. According to 5911 Customs Law, while Turkey is accepted in the custom borders, for the application of FZ import duties and trade policy measures are considered outside Turkey Customs Union, in addition to this not in free circulation goods are allowed to take advantage of the tax benefits in Free Zones (5911 Customs Law).

To observe the developments in Free Zones phenomenon, firstly FZ established where and when in Turkey until today can be take a look. Table 1 is constructed for this purpose.

**Table 1: Free Zones in Turkey and Establishment Dates**

FZ Number	Establishment	FZ Name	FZ Year	Establishment
1		Mersin FZ		1985
2		Antalya FZ		
3		Ege FZ		1987
4		İstanbul Atatürk Airport FZ		
5		Trabzon FZ		1990
6		İstanbul Trakya FZ		
7		Adana Yumurtalık FZ		1992
8		İstanbul Industry and Trade FZ		
9		Mardin FZ		1994
10		Samsun FZ		1995
11		Avrupa FZ		1996
12		Rize FZ		
13		Kayseri FZ		1997
14		İzmir FZ		
15		Gaziantep FZ		1998
16		TÜBİTAK-MAM FZ		1999
17		Denizli FZ		
18		Bursa FZ		2000
19		Kocaeli FZ		

Resource: <http://www.ekonomi.gov.tr> , Access Date: 05.04.2015.

While first FZ in Turkey are activated in Mersin and Antakya in 1985, in 90s Free Regionalism approach for Turkey is drawing attention as the years given top priority (in this process is founded 13 FZ). Last additions to FZ in Turkey are Denizli, Bursa and Kocaeli FZ in 2000, no progress is observed in the context of the new establishment is registered for the past 14 years.

It's clear that FZ applications has/had a positive impact on employment policy of country economy. In this context, employment effects of FZ applications in Turkey in last 2 years (2013 and 2014) are evaluated in Table 2.

**Table 2. Free Zones Employment Data (2013 and 2014)**

Free Zones	Employment in 2013	Employment in 2014	Change Rate %
Ege	17 265	17 042	- 1,29
Bursa	7 940	9 271	16,76
Mersin	8 208	9 334	13,72
Antalya	3 710	4 478	20,70
İstanbul Industry and Trade	4 344	4 367	0,53
Kocaeli	1 398	1 358	-2,86
TÜBİTAK-MAM Tek.	2 699	1 416	-47,54
Avrupa	3 012	3 322	10,29
Kayseri	2 797	3 562	27,35
İzmir	1 471	1 543	4,89
İstanbul Trakya	1 576	2 047	29,89
İstanbul Atatürk Airport	1 185	1 246	5,15
Adana-Yumurtalık	758	1 877	147,63
Samsun	408	401	-1,72
Gaziantep	141	155	9,93
Trabzon	52	47	-9,62
Denizli	38	33	-13,16
Mardin	4	4	0,00
Rize	4	2	-50,0
<b>Total</b>	<b>57 010</b>	<b>61 505</b>	<b>7,88</b>

Resource: <http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070997>

Access Date: 04.04.2015

Last two years of employment capacity of FZ in Turkey shows that the development of employment opportunities are unstable in these regions. While employment is increasing in 12 of 19 FZ, other 7 FZ have employment decrease. While a lot of employment opportunities increased in some regions (like Adana-Yumurtalık FZ - 147,63%), much reduced employment opportunities in some regions (Rize FZ - 50,0% and TÜBİTAK-MAM Tek. FZ - 47,54%) and in some regions employment capacity is constant (Mardin FZ - 0,0%).

Yılmaz and Çapraz (2013:83), in the study of FZ's employment performance in Turkey with the data envelopment model reached the result of that Ege, Bursa, İstanbul Atatürk Airport, İstanbul Industry and Trade, İzmir, Kocaeli, Mersin and TÜBİTAK-MAM Technology FZ come ahead in terms of employment creation capability. On the other hand, 3 of these 8 FZ, İstanbul Industry and Trade and TÜBİTAK-MAM Technology FZ, couldn't use the potential of creating employment as of 2014, even at current employment levels also experienced the loss of blood.



FZ applications are known as having the ability to be able to make some impact to foreign trade volume of the country in which they are installed. In this context, the FZ's foreign trade volume of Turkey is evaluated in Table 3.

**Table 3. Total Foreign Trade Volume of FZ in Turkey (2002-2014) (in Thousands \$)**

Years	Foreign Trade Volume of FZ in Turkey	Percentage Change According to Previous Year
2002	11 102 596	33
2003	16 608 066	50
2004	22 110 402	33
2005	23 362 826	5,7
2006	23 824 028	2,0
2007	24 873 445	4,4
2008	24 578 055	-1,2
2009	17 756 883	-27,8
2010	18 572 206	4,6
2011	22 646 175	21,9
2012	23 053 135	1,8
2013	23 240 397	0,8
2014	22 432 242	-3,5

**Resources:** 1. Işık ve Çabuk (2007) “Serbest Bölgeler Vergi, Muhasebe ve Dış Ticaret Açısından”, Maliye ve Hukuk Yayınları, Ankara, s.40.

2. Tümenbatur (2012) “Serbest Bölgeler ve Türkiye Ekonomisine Katkıları Üzerine Bir Değerlendirme”, Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi, Cilt 21, Sayı 3, s.351.

3. Uzun ve Tıraş (2009) “Serbest Bölgelerin Ekonomik Etkileri: Kayseri Serbest Bölgesi İçin Bir Uygulama”, Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, Sayı:26/1, s. 254.

4. <http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070996> Erişim: 04.04.2015

5. [www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date: 25.03.2015.

It's observed that foreign trade volume of FZ in Turkey always increases during 2002-2014 period except 2010 and 2014. The years have the biggest increase of FZ foreign trade volume is 2003 (50%) and 2002, 2004 (33%), they can be evaluated the scope of Transition to Strong Economy Program. With the year has decrement in the foreign trade volume 2009 (27,8%) value can be evaluated to related with the 2008 Global Finance Crisis. Decrease in 2014 (3,5%) can be associated with political and economic problems.

**Table 4. Foreign Trade Volume of Turkey Free Zones Foreign Trade (2002-2014) (in Thousands \$)**

Years	Foreign Trade Volume of Turkey FZ Foreign Trade	Percentage Change According to Previous Year *
2002	2 052 981	-
2003	2 517 178	22,6
2004	3 375 097	34,1
2005	3 733 284	10,6
2006	3 911 361	4,8
2007	4 196 605	7,3
2008	4 342 311	3,5
2009	2 922 353	-32,7
2010	2 962 235	1,4
2011	3 582 778	20,9
2012	3 340 761	-6,8
2013	3 680 693	10,2
2014	3 531 131	-4,1

**Resource:** [www.tuik.gov.tr](http://www.tuik.gov.tr) , Access Date: 25.03.2015. \* Percentage changes are calculated by me.

Turkey's foreign trade volume is carried out in FZ in Turkey in as many years did not show a complete stability. Although the upward trend until 2008, the effects of the 2008 crisis were reflected negatively on foreign trade in 2009. In addition to this, 2012 (6.8%) and 2014 (4.1%) decrease in trade volume in the year is noteworthy. In the post-2009, both FZ foreign trade volume and foreign trade volume exchange rate instability is available.

Evaluating the share of foreign trade in Turkey of FZ built in Turkey basis on the groups of selected countries is important for Turkey to reveal the location of the FZ trade. For this purpose, exports held Table 5, Table 6 also offers the possibility to make an assessment in terms of imports.

**Table 5. Distribution of Export of Turkey According to Selected Countries (in Thousands \$)**

Years	Total Export of Turkey	Country Group					
		Free Zones Export	Percent age in Total Exp.	EU Export (E U-28)	Percent age in Total Export	Other Countries Exp	Percent age in Total Export
2002	36 059 089	1 478 477	4,1	20 457 907	56,7	14 122 705	39,2
2003	47 252 836	1 928 266	4,1	27 479 360	58,2	17 845 210	37,7
2004	63 167 153	2 563 637	4,1	36 698 919	58,1	23 904 597	37,8
2005	73 476 408	2 973 224	4,0	41 532 953	56,5	28 970 231	39,4
2006	85 534 676	2 967 219	3,5	48 148 628	56,3	34 418 829	40,2

7	200	10 7 271 750	2 942 876	2,7	60 754 022	56,6	43 574 852	40,6
8	200	13 2 027 196	3 008 061	2,3	63 719 097	48,3	65 300 038	49,5
9	200	10 2 142 613	1 957 066	1,9	47 228 119	46,2	52 957 428	51,8
0	201	11 3 883 219	2 083 788	1,8	52 934 452	46,5	58 864 980	51,7
1	201	13 4 906 869	2 544 721	1,9	62 589 257	46,4	69 772 890	51,7
2	201	15 2 461 737	2 294 934	1,5	59 398 377	39,0	90 768 426	59,5
3	201	15 1 802 637	2 412 824	1,6	63 039 810	41,5	86 350 002	56,9
4	201	15 7 642 154	2 270 360	1,4	68 529 094	43,5	86 842 700	55,1

Resource: [www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date 25.03.2015

Turkey's exports in the period 2002-2014 it is noticeable that there was an increase in terms of volume. Same improvement in terms of exports carried out can be observed between FZ, EU-28 and Other Countries. Scope of Strong Economy Transition Program of Turkey, the increasing trend in exports in the first drop after 2002 were found in 2009 (effects of global crisis from USA at the end of the 2008), and this trend was followed by second decline in 2013. Exports decline in 2009, it is observed in terms of the examined countries groups. But more remarkable development is that share of export with Other Countries increases beside of declining export share of the EU-28 countries and FZ in Turkey's export.

**Table 6. Distribution of Import of Turkey According to Selected Countries (in Thousands \$)**

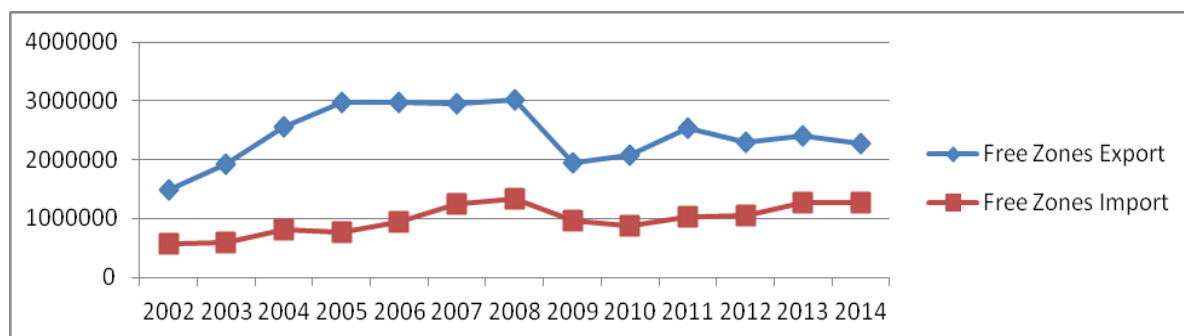
Years	Total Import of Turkey	Country Group					
		Free Zones Import	Percentage in Total Import	EU Import (A B-28)	Percentage in Total Import	Other Countries Import	Percentage in Total Import
2002	51 553 797	574 504	1,1	25 698 221	49,8	25 281 072	49,1
2003	69 339 692	588 912	0,8	35 156 836	50,7	33 593 944	48,5
2004	97 539 766	811 460	0,8	48 130 900	49,3	48 597 406	49,9
2005	116 774 151	760 060	0,7	52 781 362	45,2	63 232 729	54,1
2006	139 576 174	944 142	0,7	59 447 587	42,6	79 184 445	56,7
2007	170 062 715	1 253 729	0,7	68 472 309	40,3	100 366 676	59,0
2008	201 963 574	1 334 250	0,7	74 513 444	36,9	126 115 880	62,4

200	140	965	0,7	56	40,2	83	59,1
9	928 421	287		616 302		346 833	
201	185	878	0,5	72	39,0	112	60,5
0	544 332	447		391 053		274 832	
201	240	1	0,4	91	38,0	148	61,6
1	841 676	038 057		439 406		364 213	
201	236	1	0,4	87	37,1	147	62,5
2	545 141	045 827		657 462		841 852	
201	251	1	0,5	92	36,7	157	62,8
3	661 250	267 869		457 992		935 389	
201	242	1	0,5	88	36,7	152	62,8
4	182 754	260 771		783 685		138 297	

Resource: [www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date 25.03.2015

Between the years 2002-2014, there was an increase in terms of volume of imports is noteworthy. Same improvement in terms of exports carried out can be observed between FZ, EU-28 and Other Countries. Scope of Strong Economy Transition Program of Turkey, the increasing trend in imports in the first drop after 2002 were found in 2009 (effects of global crisis from USA at the end of the 2008), and this trend was followed by second decline in 2012. Import decline in 2009, it is observed in terms of the examined countries groups. But more remarkable development is that share of import with Other Countries increases beside of declining import share of the EU-28 countries and FZ in Turkey's export. This weight change that Turkey imports experienced based on groups of countries takes place in the same way with change in export, although imports have been larger. (For more information on this subject, see Table 1).

2002-2014 period, the trend of change of FZ exports and imports in Turkey can be better understood with the aid of Figure 1.

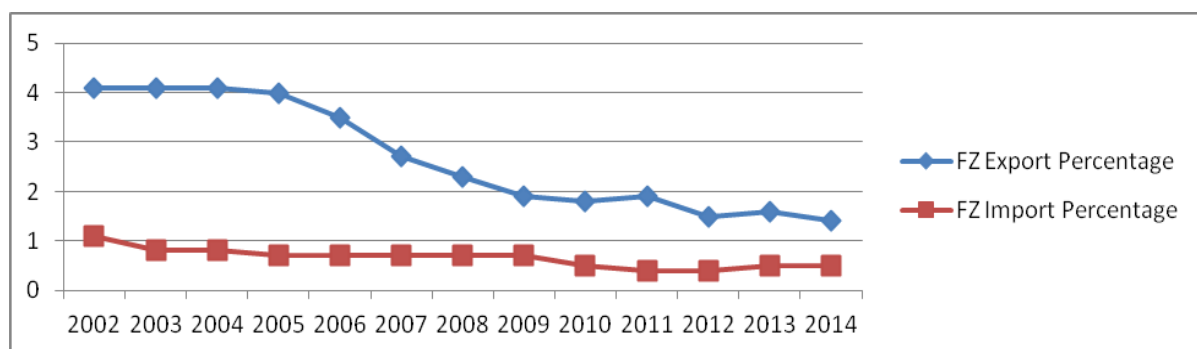


**Figure 1. Improvement of Foreign Trade in Turkey FZ was Performed in Turkey Foreign Trade (in Thousands \$)**

Showing an increase in the range of 2002-2005 Turkey-FZ export value, stagnant between 2005-2008 and declined in 2009. Increase and decrease motions until today have been observed beside of try to has increase trend again by heal itself after this year.

Showing an increase and decrease trend in the range of 2002-2005 Turkey-FZ import value, has increasing trend between 2005-2008 and decreases from 2008 to 2010 continuously. But this unstable improvement has continued to follow each other after 2010. Acceleration of the development of foreign trade in Turkey's foreign trade with Turkey SB,% change in this trade 's help can be traced on the basis of the Figure 2.

Acceleration of the foreign trade development in Turkey's foreign trade with Turkey FZ, percentage change in this trade's can be traced on the basis of the Figure 2.



**Figure 2. Percentage Change of Free Zones Export in Turkey Foreign Trade**

Years and years of declining share of export and import performed in Turkey FZ inside total export and import of Turkey Figure 2 represents itself in fairly good manner. This figure while emphasizes the supremacy of exports to imports against FZ (between 2002 and 2005) in the early 2000s, also shows redundancy between exports and imports shrank as the years because of the decreasing export after 2005.

#### 4. Conclusion

Whether potential effects of FZ on the national economy are either positive or negative; foreseeable that these formations will not lose its importance in world trade. As Sberegayev (2005:78) indicates, FZ in the country established is mediated; to provide regional social and economic development, to raise the living standards of the population, establishment of trade, economic, scientific and technical association, thanks to foreign capital, specialization in management, progress in technology, an increase in export capacity creation. Economies which can move to the next level to efficiency and quality in the globalized economy can take advantage to gain competitive edge in foreign trade.

International economic foundations, especially GATT/WTO take important roles on the feature of FZ can be estimated. Because customs tariff is greatly reduced thanks to this international organization, even in many areas it has been reset. EU creates similar effects among members in regional perspective.

Establishment of FZ perspective of Turkey is observed between the years 1985-2000. After the entering the Customs Union process between Turkey and EU, for the elimination of a number of uncertainties on the FZ, regulations were carried out on FZ and Customs Law. On the other hand, with the enactment of the Transition to Strong Economy Program in Turkey after 2002, narrowing the advantages of FZ activities in Turkey is limited. After the 2002, FZ applications in terms of foreign trade experience of Turkey this negative change in the results of our work is quality support.

As well as reduction of the value of exports and imports that performed with FZ in the values of Turkey exports and imports, the value of exports and imports carried out with the EU is observed that the decrease since 2002. Turkey foreign trade had a change in 2 ways after the Customs Union carried out with EU can be said: First one is that FZ applications lost its previous worth. Secondly, foreign trade direction shifts to non-EU contrary to expectations and the trade creation effect of integration entered remains weak.

While FZ is used as a tool to economy and foreign trade policy for Turkey, Customs Regime property is showed for the EU. In this sense, regulations to be made EU integration process should be more accurate within the realization of this vision. It is clear that Turkey which is in the developing country statue needs to increase the level of development with the help of positive effects of FZ. In this sense, it is a necessity to increase the attractiveness of the existing FZ.

#### 5. References

Ay, Sema (2009) "The Economical Impacts of Free Zones: The Estimation in terms of Trade Volume, Employment and Foreign Capital of Free Zones in Turkey and Bursa Free Zone" "İŞ, GÜÇ" Endüstri

İlişkileri ve İnsan Kaynakları Dergisi "IS, GUC" *Industrial Relations and Human Resources Journal*, Temmuz/July 2009 - Cilt/Vol: 11 - Sayı/Num: 04, 33-46.

Facchini, Giovanni and Willmann, Gerald (1999), "The Gains from Duty Free Zones", *Journal of International Economics*, Vol. 49, Is. 2, December-1999, pp.403-412.

"Gümrük Kanunu İle Bazı Kanun Ve Kanun Hükmünde Kararnamelerde Değişiklik Yapılmasına Dair Kanun", Kanun No. 5911, Kabul Tarihi: 18/6/2009, <http://www.resmigazete.gov.tr/eskiler/2009/07/20090707-1.htm>, Erişim Tarihi: 21.05.2015.

Hausmann, Daniel M. (1989), "Are Markets Morally Free Zones?", *Philosophy & Public Affairs*, Vol.18, No.4, Autumn-1989, pp. 317-333.

Işık and Çabuk (2007) "Serbest Bölgeler Vergi, Muhasebe ve Dış Ticaret Açısından", Maliye ve Hukuk Yayınları, Ankara.

Sberegayev, Nikolay (2005), "Local Free Economic Zones: New Approach and New Opportunities", *Engineering Economics*, Vol. 41, No. 1, Urgent Issues, pp-74-79.

Thoman, R.S., (1956) *Free Ports and Foreign Trade*, Cornell Maritime Press, Cambridge.

Tümenbatur, Atiye (2012), "Serbest Bölgeler ve Türkiye Ekonomisine Katkıları Üzerine Bir Değerlendirme", *Ç.Ü. Sosyal Bilimler Enstitüsü Dergisi*, Cilt 21, Sayı 3, ss. 339-356.

Uzay, Nisfet and Tıraş, H. Hayrettin (2009) "Serbest Bölgelerin Ekonomik Etkileri: Kayseri Serbest Bölgesi İçin Bir Uygulama", *Erciyes Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, Sayı:26/1, ss. 247-277.

Yılmaz, Ayşegül and Çapraz, Kürşat (2013), "Comparison of Free Zones in Turkey by means of DEA", *Data Envelopment Analysis and Performance Measurement*, Proceedings of the 11th International Conference of DEA, June, 27-30 2013, pp. 77-84.

Zeng, Douglas Zhihua (2015) "Global Experiences with Special Economic Zones: Focus on China and Africa" Policy Research Working Paper 7240, April 2015, pp. 1-24.

<http://www.ekonomi.gov.tr> Access Date: 05.04.2015.

<http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070997> Access Date: 04.04.2015.

<http://www.ekonomi.gov.tr/portal/ShowProperty?nodeId=%2FUCM%2FEK-070996> Access Date: 04.04.2015

[www.tuik.gov.tr](http://www.tuik.gov.tr), Access Date 25.03.2015



# Development of World Health Indicators in The Shade of Neoliberalism

Bilge Senturk

## 1. Introduction

After World War II, due to the expansion of health services organized by the state, there was a significant progress in the field of health both in developed and developing countries. Excluding the health problems caused by war, the most important health problem affecting the societies until World War II was the prevalence of infectious and epidemic diseases. The fact that high infant mortality rate and low level of life expectancy at birth was the most prominent characteristics affecting demographic structure. But after World War II, increased public services such as access to clean water, protection and immunization, and widespread use of health services prevented infectious and epidemic diseases significantly (WHO, 1997). Therefore fundamental health indicators such as infant mortality and life expectancy were improved significantly almost in every country. However, it is not possible to say that the developments are fair across the world.

In this study, after discussing the general features of the diseases and changes in demographic characteristics, developments in health indicators will be demonstrated. The changes in fundamental health indicators and health expenditures over the world have been studied with the development and spread of health services. The indicators are analyzed according to the income levels of countries between 1960 and 2015, further the effects of neoliberal policy changes on these indicators are discussed. The indicators are divided into two main groups: the fundamental health indicators consist of “infant mortality rate” and “life expectancy at birth”. The health expenditures are formed as “health expenditures rate in GDP (%)” and “health expenditures per capita”. The change in indicators can be monitored by the various country groups formed by World Bank (WB). However, the course of this grouping varies for two periods, before and after 1990. For the pre-1990 period, the country groups consist of developed market economies, formerly socialist economies in Europe and demographically developing countries<sup>19</sup>. After 1990, with the collapse of the Soviet Union, the forms of grouping changed. Then, for the traceability of data in the study, the countries are divided into “low, middle, upper-middle, high income countries and OECD countries” for the post-1990 period. In the light of the data examined, it is observed that the social state characteristics seen in the countries are an important dynamic affecting health indicators.

## 2. Development of Fundamental Health Indicators

The development of indicators pre-1990 period was presented on the basis of certain country groups, such as Established Market Economies, Formerly Socialist Economies of Europe and Demographically Developing Country Group, which is published in the World Health Report by the World Bank in 1993. The grouping is important in terms of covering different economic systems. The priorities in these grouping are the developmental levels and demographic structures of the countries. Before 1990, in addition to the existence of capitalist economies, a significant number of socialist economies existed

---

<sup>19</sup> Established Market Economies: *Portugal, Greece, Ireland, New Zeland, Spain, U.K., Australia, Italy, Netherland, Belgium, Austria, France, Canada, U.S., Germany, Denmark, Finland, Norway, Sweden, Japan, Switzerland.*

Formerly Socialist Economies: *Romania, Poland, Bulgaria, Moldova, Ukrain, Czechoslovakia, Lithuania, Hungary, Belarus, Russian Fed., Albania, Yugoslavia.*

Demografically Developing Counties: *Sub Saharan Africa, India, China, Other Asia and Islands, Latin America and Caribbean, Middle Eastern Crescent.*



in Europe. Although the income levels of both capitalist and socialist country groups were quite different from each other, the developments in the field of health followed a similar course. Another group of countries discussed in the report is developing countries; however, this group is composed of countries with similar demographic characteristics. Established Market Economies and Former Socialist Economies have relatively old population; and other developing countries with low and middle income represent the countries with predominantly young population under the name of Demographically Developing Countries.

Table 1 shows the development of life expectancy at birth and infant mortality rates in the country groups formed according to demographic and market characteristics and income levels between 1960 and 2015. The life expectancy at birth, which was 70 in 1960 for Established Market Economies, increased to 76 in 1990. In the formerly Socialist European Economies increased from 66 to 72 in the same period and from 46 to 63 in other developing countries. In terms of life expectancy at birth, it is seen that the most important development between 1960 and 1990 was in developing countries with an increase of 37%. The increase in life expectancy at birth in socialist and market economies increased by 9.1% and 8.6%, respectively.

According to Table 1, life expectancy at birth increased by 11% from 1990 to 2015 all over the world. This rate was 8% in market economies and 4% in socialist economies. In the former socialist economies, the rate of development of life expectancy at birth has slowed down considerably (from 9% to 4%), and has continued at almost the same pace in established market economies with the highest life expectancy in the world (from 8,6% to 8%). According to the data at 2015, life expectancy in the former socialist economies is 7 years lower than the established market economies. After 1990, this difference began to open up significantly in the formerly socialist countries. It is observed that the difference was 4 years between 1960 and 1990, but increased to 7 years in 2015.

According to income groups, life expectancy in low-income countries increased by 13% and 24% from 1960 to 1990 and 1990 to 2015, respectively. The difference in life expectancy compared to high income countries was 25 years in 1990 and it decreased to 19 years in 2015. In middle-income countries, life expectancy increases for the same periods by 33% and 11%, respectively. Although the difference has been 9 years between the middle-income countries and high-income countries after 1990; the rate of increase in life expectancy after 1990 in the middle-income countries is seen to have slowed down significantly. In OECD countries, the growth rates of these periods increased at almost the same rate as the high-income countries.

While the infant mortality rate in the world was 103 in every thousand births in 1960, this rate decreased by almost half, to 50 by 1990, and from 1990 to 2015 it fell to 24. According to country groups, the decrease between 1960-1990 was 53% in demographically developing countries; 68% in socialist and 69% in established market economies. From 1990 to 2015, the change in both groups which constitute established market and formerly socialist economies was realized as 72%. The average rate of decline for the same period in low-income countries and middle-income countries was 54%; 68% in upper-middle-income countries; 50% in high-income countries and 65% in OECD countries. Despite these developments, infant mortality rates in low-income and middle-income countries are 10-fold and 6-fold higher than in high-income countries, respectively.

Table 2 shows the development of health expenditures in GDP and health expenditures per capita with the constant 2011 prices (\$) by country groups. The biggest share belongs to OECD countries in every selected years. The countries with low, middle and upper-middle income have similar rates and development line by the years. But when we look at the difference by the income levels, we see that the low-income countries have almost half rate of health expenditures in GDP than the high-income countries. According to Table 2, the highest health expenditure per capita is in high income countries by the years. In 1995, total health expenditure per capita in low-income countries was only 1.5% of total health expenditure per capita in high-income countries. After almost ten years, by 2014, this rate has reached only to 1.8%.

### 3. Discussion

Looking at the developments in 1990, the fundamental health indicators of the socialist and market economies, whose demographic characteristics are similar but income levels are quite different, are interesting in terms of showing a close development line between the years 1960 and 1990<sup>20</sup>. Unlike the WB, which links the developments in health services predominantly to income growth, it is clear that the developments in socialist countries have different dynamics. As a matter of fact, in 1990, the average health expenditure per capita in established market economies was \$1.860, whereas it was only \$142 in socialist countries (WB, 1993). Development of health services in these countries can be explained by the Semashko type in the health system which was prevalence in the early 1900s, just before World War II. It is clear that this system focuses on protective services and aims to cover the entire population. So it does not require expensive and advanced technology, even when evaluated according to past or today's conditions. Another dynamic can be attributed to the development of non-wage social aids in socialist countries. Considering that fundamental health indicators are affected not only by access to health services but also by socioeconomic life conditions. For example non-wage social welfare or, more generally, social security systems that improve the level of living in socialist countries were quite strong.

**Table 1:** Fundamental Health Indicators by Country Groups

	Life Expectancy at Birth										Infant mortality (every 1.000 Live Birth)									
	960	975	990	995	000	005	010	015	960-1990 Change (%)	990-2015 Change (%)	960	975	990	995	000	005	010	015	960-1990 Change (%)	990-2015 Change (%)
World Average	3	0	5	6	7	9	1	2	23	11	03	5	0	6	0	3	8	4	51	52
Established Market Economies (EME)*	0	3	6	7	8	0	1	2	9	8	6	1	1						69	72
Formerly Socialist Economies in Europe (FSE)**	6	0	2	0*	2	2	4	5	9	4	8	6	2	6	3	0			68	72
Demographically Developing Countries****	6	6	3						40		26	52	06						53	

<sup>20</sup> In 1990, per capita income in socialist countries was 7 times lower than in developed market economies (WB, 1993).

Low Income Countries	9	6	0	1	2	6	9	2	13	24				12	04	3	6	3	2		54
Middle Income Countries	8	9	4	5	7	8	0	1	33	11				5	0	3	4	6	0		54
Upper-Middle Income Countries	0	4	9	9	1	3	4	5	38	9				1	5	9	1	6	3		68
High Income Countries	8	2	5	6	8	9	0	1	10	8				0							50
OECD Countries	7	1	5	6	7	8	9	0	12	7				7	4	1					65

**Source:** The country groups were tabulated according to “Population Structures and Dynamics” determined in WB (1993) and the data until 1990 were obtained from WB (1993); data from 1995 and onwards were compiled from WB (2018).

\* Except Serbia.

\*\*EME: Portugal, Greece, Ireland, New Zealand, Spain, U.K., Australia, Italy, Netherland, Belgium, Austria, France, Canada, U.S., Germany, Denmark, Finland, Norway, Sweden, Japan, Switzerland.

\*\*\*FSE: Romania, Poland, Bulgaria, Moldova, Ukraine, Czechoslovakia, Lithuania, Hungary, Belarus, Russian Fed., Albania, Yugoslavia.

\*\*\*\*Sub Saharan Africa, India, China, Other Asia and Islands, Latin America and Caribbean, Middle Eastern Crescent.

**Table 2:** Health Expenditures in GDP (%) and Health Expenditures Per Capita (\$)

	Health Expenditures in GDP (%)								Health Expenditures Per Capita (constant prices by 2011, \$)							
	1995	2000	2005	2008	2009	2010	2015	(1995-2015) change	1995	2000	2005	2008	2009	2010	2014	(1995-2014) change
<b>ECDCountries</b>	,2	,8	1,0	1,3	2,2	2,1	2,4	35%	876	411	313	915	076	193	701	250%
<b>European Union Countries</b>	,3	,4	,2	,4	0,2	0,0	,9	19%	444	845	499	040	197	244	524	240%
<b>High Income Countries</b>	,2	,8	1,0	1,2	2,2	2,1	2,4	35%	078	665	653	295	495	614	205	250%
<b>Upper-Middle Income Countries</b>	,2	,5	,6	,7	,2	,0	,7	11%	96	77	25	93	77	99	28	473%
<b>Lower-Middle Income Countries</b>	,9	,2	,3	,4	,9	,6	,8	18%	39	88	84	83	30	39	77	415%

Low Income Countries	1															
	,4	,4	,6	,5	,9	,4	,0	36	2	2	9	0	4	5	2	290

Source: WB (2018)

<https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?end=2015&start=2015>

The reason why developing countries have a faster development in health indicators compared to other country groups can be explained by two reasons. First is the fact that health systems of these countries have remained far behind the developed countries before 1960. Secondly, public health services, which have become widespread after World War II, increased the access. However, despite the developments in health services in developing countries, significant differences have continued in 1990 with the developed countries in fundamental health indicators. While the infant mortality rate per thousand births in developing countries was 106 in 1990, this rate decreased to 11 in developed market economies for the same year. This difference corresponds to 11 million lives of the infants in developing countries. Moreover, these deaths can be prevented by simple and inexpensive preventive treatment (WB, 1993). Unfortunately, the indicators are considered to be evidence of unequal development (in the concept of uneven growth in income and technological advances) in the world.

According to WB (1993), the most important reason for the inequalities before 1990 is the differences in human behaviors which are aimed at protecting the health. These behaviours are affected by the "income" and "education levels. The second important reason is the amount and effectiveness of health expenditures. Considering the first reason, we can say that inequalities are individualized. In other words, it is observed that the responsibility of the state is ignored in the areas of income distribution and education. It is true that having a high income level or getting a good education will lead to a healthy behavior. However, the fact that these features also increase access to health services is a pre-acceptance of the inequalities in society. Low level of education, as one of the reasons that hinder access to health services, is as a public organization problem. In other words, the main reason for the problem on access to health and education services is based on state not being the most responsible authority to extend these services to all segments of the society. For example, in the former socialist countries, although the income levels were low compared to the countries with a market economy, serious breakthroughs were made in the first half of the 20th century. Accordingly, the reason for the inequalities between the countries after 1990 is the inability on redistributing the income by the way of various public services to the society. Health and education services are the main areas of these services.

With the change in demographic structure, the weight of infectious diseases in health problems in both developed and developing countries has been replaced by non-communicable diseases such as cancer, circulatory disorders, mental disorders, chronic respiratory and musculoskeletal disorders. However, in developing countries, the level of developed countries has not been reached in the fight against infectious and epidemic diseases. Therefore, although there has been significant progress in infant mortality and life expectancy at birth in developing countries, there are still serious differences compared to developed countries. According to the WHO (1997) report, the inequality in the 1990s depends on the fact that global health priorities are directed towards communicable diseases and non-communicable diseases. In other words, developed countries as the directors of global health policies over the world, lead to use most of the resources for non-communicable diseases rather than communicables. But this tendency led to the deepening of the gap between poor and rich countries (Belek, 2009).

In developing countries, the percentage of people who had access to health services exceeded 60% by 1990 (Human Development Report, 1990). The insufficiency of access to hospitals and preventive services has led to large disparities in urban and rural areas. The majority of the population without insurance lives in the rural areas and health services and personnel are concentrated in cities (Belek, 2009). Inequality is seen in the cities, too. Leaving the problem of immigration unresolved has led to accelerate the non-planned urbanization and health conditions began to be adversely affected; the migrants could not benefit from health services due to irregular work or informal work (Islam & Tahir, 2002). Moreover, debt crises and increased defence expenditure in developing countries had forced their budgets, which seriously reduces health investments (Human Development Report, 1990).

Health expenditures, which are considered in the literature as the second most important reason for inequalities, were identified as one of the main explanatory variables in the OECD study which investigated the factors determining the life expectancy at birth in 35 countries for period of 1995-2015 (OECD, 2017). It is stated that health expenditures explain a part of life expectancy. 10% increase in

health expenditures per person leads to an increase in life expectancy by 3.5 months. However, the basic education level, which is one of the explanatory variables in socioeconomic characteristics, has almost the same effect as the health expenditure of 3.2 months. Also, per capita income increases life expectancy by only 2.2 months. In addition, the decrease in alcohol and cigarette use towards healthy lifestyle leads to an increase of 2.6 months on life expectancy. As a result, regression estimations on health expenditures should focus on health-related habits (smoking, alcohol use, healthy nutrition, etc.), social determinants of health (income, education, unemployment, etc.) and air pollution from environmental factors.

Despite the high health expenditures in the USA, developments in fundamental health indicators indicate a paradoxical situation compared to other countries. Although Japan has the highest life expectancy among OECD countries, health expenditure per capita is less than half of the US. In Cuba, health expenditure per capita is almost one tenth of the high-income country average. However, fundamental health indicators are almost the same as the average of high-income countries. While the public health expenditure is 96% in total health expenditure and the rate of health expenditures in GDP is 11.8% in Cuba, this can not be explained by income level but we can find some answers at public services and accessibility. For example the share of out-of-pocket payments in total health expenditures, which are considered to be one of the main problems in access to services even in developed countries, is almost one-third of high-income countries (WB, 2018).

### 3. Conclusion

After World War II, preventive health care services given by the states became widespread with the welfare state practices. So, infectious and epidemic diseases were significantly prevented by more access to clean water, immunization and preventive services. Therefore fundamental health indicators were improved significantly both in developed and developing countries. However, beginning from 1980s, with the “so-called” neoliberal reforms, welfare state practices were gradually eliminated. These policy transformations had important consequences for the healthcare services around the world. Firstly public resources were transferred to private sector and more to the secondary healthcare (treatment) services especially in developing countries. Secondly when one thinks that access to healthcare is one of the “universal human rights”, the gap between developing countries and developed countries in terms of health indicators has not been decreasing. According to the World Bank Report (2017) about the universal health coverage, access to fundamental healthcare services increased by %20 over the world, but at least half of the world population still has not a full coverage system for these services.

In this study, the reasons and effects of changes in basic health indicators and health expenditures over the world have been studied with the development and spread of health services. The developments in both areas are examined according to certain country groups. According to the indicators, the inequality between the groups of countries continues. After World War II, health expenditures started to increase rapidly. In the historical process, both the publicization and the marketization of health services play a certain role at the basis of this increase. Looking at the developed countries, increased incomes were transferred to the health field during the welfare state, where health services were publicized. On the other hand, in line with the priority given to the health, the public resources that the developing countries have devoted to health services have been increased. In this way, it can be said that there are significant improvements in fundamental health indicators across the world, even if the indicators are unequal.

However, following the extensification of health services, a number of different dynamics emerged with the change of health indicators. The first of these was the prolongation of life-time with significant prevention of infectious diseases and thus the increase of the severity of non-communicable diseases. In the economic crisis which started to show its effect towards the end of the 1970s, health services have become an important “profit area” for private capital, especially through the treatment of curative diseases. Thus, after World War II, public efforts to prevent infectious diseases (including scientific inventions such as vaccines, medicines, etc.) have been replaced by private profit-based initiatives.

This change means that technology-based treatments for non-communicable diseases are prioritized; in other words, health services have started to be in a marketization process.

The process of marketization in both developed and developing countries has led to a rapid and serious increase in costs in health services. For developing countries, especially in the economic crisis, investments in health services have lost priority. In the cooperation of public-private partnership, various areas of health services have been transferred to private sector and continue to be transferred. This process has resulted in an unequal development worldwide in terms of both basic indicators and expenditures.

Although significant developments has been progressed in developing countries in the aftermath of 1990, inequalities still continue in comparison with developed countries. The growth rate of life expectancy has slowed down especially after 1990. It is not possible to say that this slowdown stemmed from the convergence of developing countries to the developed country level. For example, the life expectancy growth in 2015 is 10% in middle-income countries, while it is around 8% for high-income countries. As of 2015, life expectancy compared to middle-income countries is 10 years more in the high-income countries. Moreover, considering that middle-income countries contain most of the world's poor population, with their position on inequality, they are as vulnerable as the least-income countries and rural areas (Jamison et al., 2013).

WB (2017) 's report on universal health insurance states that access to basic health services has increased by 20% between 2000 and 2015, but at least half of the world population still does not have health insurance covering all basic health services. The prevalence of communicable diseases still maintain its importance in low income countries and especially poor and rural areas of middle-income countries. In addition, non-communicable diseases are becoming widespread, and as a result of urbanization and the spread of motor vehicles, traffic accidents have a significant share in young human deaths (Jamison et al., 2013). According to the estimated figures, 1 billion people have uncontrolled hypertension. 200 million women are deprived without health insurance covering family planning. 20 million children can never be reached vaccines such as diphtheria, tetanus, whooping cough etc. or their vaccinations cannot be completed. The differences between countries vary between 22 and 86 according to the calculated universal health insurance index (WB, 2017).

From a different point of view, Leys (2009, 57) draws attention to what lies behind the inequality between the countries is the *shift in the balance of power between classes*. So, the developments after 1990, when the global economic crisis began to worsen and the socialist bloc was dispersed, unfortunately could not show significant improvements in existing inequalities. As a result of the weakening of the welfare state, the income distribution has become increasingly disrupted. With the increase in the weight of private capital in the field of public health services and prioritization of curative services rather than preventive services, the costs in the health sector have increased significantly. One of the results of these developments is introducing new applications for sharing the costs, such as user fees (out of pocket payments). This application have started to become widespread by the state as well. While the proportion of population covered by health insurance is increasing, the problem of financial access in the health services remains.

#### 4. References

- Belek, İ. (2009). *Sağlığın Politik Ekonomisi: Sosyal Devletin Çöküşü*, 3. Baskı, İstanbul: Yazılama.
- Human Development Report (1990). Oxford University Press, [http://hdr.undp.org/sites/default/files/reports/219/hdr\\_1990\\_en\\_complete\\_nostats.pdf](http://hdr.undp.org/sites/default/files/reports/219/hdr_1990_en_complete_nostats.pdf), 23.12.2015.
- Islam, A., & Z. Tahir (2002). Health Sector Reform in South Asia: New Challenges and Constraints, *Health Policy*, 60, 151- 169.
- Jamison, D. T., Summers, L. H., Alleyne, G., Arrow K. J., Berkley, S., Binagwaho, A., ...Yamey, G. (2013). Global Health 2035: A World Converging Within A Generation, *Lancet* 2013, 382, 1898–955.
- Leys, C. (2009). Sağlık ve Kapitalizm. Leys, C. and Panitch, L. (Ed). *Kapitalizmde Sağlık Sağlıksızlık Semptomları* (s. 15-42). Umut Haskan (Çev.). İstanbul: Yordam.
- OECD (2017). *Health at a Glance 2017: OECD Indicators*, Richard B. Saltman ve Joseph Figueras (Ed.). Paris: OECD Publishing. [http://dx.doi.org/10.1787/health\\_glance-2017-en](http://dx.doi.org/10.1787/health_glance-2017-en)



WB (1993). *World Development Report, Investing in Health*, Oxford University Press.

WB (2017). *Tracking Universal Health Coverage: 2017 Global Monitoring Report*, World Health Organization and International Bank for Reconstruction and Development / The World Bank; 2017. Licence: CC BY-NC-SA 3.0 IGO.

WB (2018). Health Indicators,  
<https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?end=2015&start=2015>.

WHO (1997), European Health Care Reform: Analysis of Current Strategies, Saltma, R. B. and Figueras, J. (Ed.). European Series. No: 72. Spain: WHO Regional Publications.

# **International Community and Intervention Culture: Examining of a coalition military intervention against Libya in 2011**

Suat Donmez

## **1. Introduction**

Modern state system since the Westphalia Agreement in 1648 evolved throughout the history and as of today contemporary state concept tells us that states are sovereign and their boundaries are immune to any kind of foreign intervention. This understanding has been changing particularly since the end of the cold war. A failed or failing state is a rather new concept and international community has been developing new norms in order to prevent humanitarian disaster and sufferings as a result of political instability and insecure environment in these areas. Regardless of the sovereign rights of the states it has become a method to intervene in these situations in states boundary and establish safe and secure environment and build the necessary institutions for the state to survive and to be capable of running the state with all services it should provide to society. Libya has been one of these cases as many others we have witnessed during the last three decades. What happened in Libya and why international community intervened and current situation in Libya will be examined in this paper.

Arab Spring sparked in Tunisia when an unemployed street vendor put himself into fire in a public place. This event ignited many disappointed citizen to protest the government in Tunisia and crowds gathered in streets and demonstrations spread out the country at the end days of 2010. Similar types of demonstrations were seen in other countries of the region spreading out to Middle East from the North Africa. International community followed these events closely with the expectation that these struggles would lead to democratic movements since people demanded more rights, freedom and democracy. In the beginning these expectations seemed quite reasonable because people in these regions have suffered from autocratic and oppressive rulers for many years. This was an understandable and reasonable explanation of what has happened in those days, however why and how it has suddenly spread out to a big region and different countries was not so easy to explain. One of the main reasons for these events has been explained often with the power of social media (Howard, Duffy, Freelon, Hussain, Mari, & Maziad, 2011). It was because of social media that could involve people in politics with easily spreading messages and conversations and mobilizing them against suppressive leaders. Thus, social media played a key and critical role in Arab Spring as a whole. Governments in region tried to cut off Internet access and block social media but in general they failed to do so. After mass demonstrations governments in Tunisia and Egypt fell and in Libya Ghaddafi lost power and overthrown and civil war broke out in country. Uprising in Libya started in February 2011. Ghaddafi's security forces clashed with protester using heavy weapons including warplanes. As protests entered their second week, almost 300 civilians were reported to have been killed (Abdessadok, 2017).

Unlike demonstrations and uprising in other countries in the region brutal and harsh suppression of the demonstrator by the government security forces in Libya attracted attention of the international community. The United Nation Security Council (UNSC) adopted a resolution on 26 February 2011 urging the Libyan government to take necessary actions to protect civilians and respect human rights in Libya (The UNSC Resolution 1970, 2011). Civil unrest and clashes with government forces continued and help organizations started to evacuate foreigners from Libya. Many non-governmental organizations together with foreign national authorities took part in these evacuation efforts. The security situation deteriorated and led to a humanitarian crisis. The League of Arab States, the African Union and the Organization of Islamic Conference condemned violation of human rights in Libya. After discussions at different forums, international community decided to act and stop humanitarian crisis in Libya. The UNSC adopted another resolution that authorized the member states and regional organization in coordination with the UN to take all necessary measures to protect civilians and civilian populated areas under threat of attack in the Libyan Arab Jamahiriya while

excluding a foreign occupation force of any form on any part of Libyan territory (The UNSCR 1973, 2011). This resolution paved the way to member states to intervene in Libya in order to stop severe violations of human rights and security crisis in Libya in several forms either as an ad-hoc coalition or as a regional security organization.

What happened in many Arab countries during the end of 2010 and in the early days of 2011 was seen differently by the international community. Public opinion in the world was divided on this issue with some seeing events in an optimistic way arguing that democratic revolutions were happening in this region against oppressive and authoritarian governments and leaders through peaceful means by the local people. However others worried about the aftermath since fragmentation existed in these countries and democratic institutions were not in place to fill the gap. Once the governments and strong leaders were away from power the vacuum would be filled by some other powers, which may not align with democratic expectations of people and even lead to turmoil in many countries.

## **2. International military intervention:**

Severe clashes between the government forces and the opposition led Libya to a failing state and humanitarian situation worsened in the country. After several discussions a US led coalition was formed to intervene in Libya in line with the UNSCR 1973, which gave the authority to a coalition such as this one to take necessary action to stop the humanitarian crisis in Libya. The UN Resolution allowed enforcing an arms embargo, establishment of a no-fly zone over Libya to prevent regime forces to attack anti-Gaddafi forces from air and taking necessary action for protection of civilians. In the meantime NATO military and political authorities initiated plans for possible military operations in Libya. NATO's preparations included enforcement of an arms embargo, providing assistance to humanitarian operations in Libya and establishment of a no-fly zone over Libya. While NATO was preparing itself for a contingency, on 19 March 2011, an ad-hoc coalition mainly consisting of the US, UK and France started air operations striking Libyan government forces positions and enforcing no-fly zone over Libya.

The declaration of this operation was made by the then French President Nicholas Sarkozy. He said that western air forces, with Arab League approval, had gone into action on Saturday over Libya and were preventing Muammar Gaddafi's forces attacking the rebel city of Benghazi. (Reuters, 19 March 2011). Air operations aimed at government forces in Libya and were conducted by several sorties of the ad hoc coalition air forces including cruise missiles fired from different platforms in the Mediterranean Sea (Townsend, 2015). Although majority of these forces were those of the U.S forces, the French president did the announcement. The US administration probably did not want to be in the forefront at this event due to the perception concerns of the new government in the USA. Obama criticized previous government for wrong policies in foreign interventions such as Afghanistan and already initiated plans for redeployment of Allied Forces in Afghanistan and ending mission by handing over main responsibilities to Afghan Authorities. While doing so it might damage the Obama administration and the new US image in several parts of the world in particular in the Arab world. Thus the US preferred to keep a low profile in the international public arena on the intervention in Libya. As for Sarkozy it could have been an advantage for the approaching presidential elections in France and also for the French foreign policy by depicting that these regions were still somehow backyard for France and France was taking initiative in the recent developments in region.

Arab Spring embraced countries in the region as people protesting their governments and demanding democratic rights and fair share in country's revenue. Protesters clashed with security forces and chaos and disorder covered these countries nevertheless many of them did not turn into a situation as in Libya. Libya went to edge of civil war causing thousands leaving the country. Another mass refugee crisis horrified Europe that was still struggling with financial austerity since 2008. North Africa has always been one of the pathways for refugees to move easily to Europe through Italy. Europe was not ready for such a nightmare and wanted this chaos in Libya to be controlled. Talks between European capitals started to find ways to end this crisis on the European southern doorsteps. Another reason for this intervention was the fear of spread of international terrorism exploiting the vacuum and lack of state authority in Libya. NATO-led coalition in Afghanistan was coming to an end

and NATO and coalition countries were preparing for redeployment their forces from Afghanistan. In the absence of necessary measures Libya could have been a safe heaven and operational and logistic base for international terrorism activities, which could have posed a great danger to Europe as well as other places in the world. Both migration crisis and rise of terrorism could have been a serious security concern for Europe. These issues were the main causes among others for international community to decide for military intervention in Libya. Other countries, which were affected by Arab Spring protests and public demonstrations demanding democratic rights and freedom, were not in question for foreign intervention like Libya. Many of these countries somehow managed to ease public tensions through different ways and some of them even witnessed government changes such as Egypt and Tunisia.

International military coalition formed for Libya intervention consisted mainly from the US, UK, French and Canadian forces nevertheless coalition included more countries including Arab states. In fact on the same days when coalition started first aerial attacks on Libya NATO was also preparing contingency plans for Libya. The North Atlantic Council (NAC) tasked NATO Military Authorities to come up with a military intervention plan in line with the UNSC Resolution. When discussions in the NAC prolonged these countries took the initiative and formed an ad hoc coalition to strike military targets in Libya. This has been a real example for forming an ad-hoc coalition even from within the NATO Alliance when decision-making process cannot be managed in a foreseeable timeframe. Security situation in Libya was assessed as severe and threats to civilian population imminent. Intelligence reports were pressurizing decision makers to act quicker. This phenomenon may be seen more often in future cases, when NATO, as an Alliance, cannot be able to reach consensus among its member states for acting in different cases such as Libya. Despite several hardships for military operations member nations may prefer to act in an ad-hoc coalition instead of in an institutionalized alliance such as NATO.

There have been doubts about NATO's decision-making process recently since alliance has enlarged to include several former eastern bloc states. In similar manner even transatlantic link that bonds the US to Europe has been questioned for several reasons. Nevertheless NATO was, in fact, militarily ready and has been very quick in planning for Libya operation on the same days when the ad hoc coalition started air strikes to Libya. NATO military intervention plans were based on three pillars; first, humanitarian assistance that included providing security to the UN aid organizations in evacuation of foreign civilians and refugees from Libya second, enforcing an arms embargo on the seas off the coasts Libya using alliance naval forces and establishment of a no-fly zone over Libya, third, if and when necessary aerial strikes on the regime forces.

In comparison to the previous experience in the Balkans NATO has been quick both in military planning and political decision-making. It is in nature of the alliance to follow security situation developments in in the NATO's sphere of influence in NATO's plan for possible contingencies. In this respect the alliance military authorities already had planning data and possible plans for Libya and were tasked by the Council to do so. The alliance gained enough experience to react such situations due to the several peace support operations mission conducted since the end of the cold war. The UNSC resolution on Libya did not include and authorized intervening forces to have boots on the ground. The military operation had limited scope and mission for aerial and naval operations without any land forces, which gave more flexibility for planning. It has usually been difficult process for the alliance to get land forces from allied countries for several cases in the past. Conducting an operation with land forces in a foreign soil has always been painful experience due to transportation, logistics and sustainment costs and other organizational difficulties as well as internal social and political hardships for the force contributing countries.

Military operation with aerial strikes to Libya by an ad-hoc coalition using the UNSC resolution authorization disturbed many nations within the alliance and finally after long discussions at the Council NATO took full command of operations in Libya on 31 March 2011 and the operation were named as Operation Unified Protector. Coalition forces ceased their operations and from that day on all operations were conducted under the command of NATO led coalition. NATO conducted this operation as a coalition operation. As for the previous examples non-article 5 operations were conducted as coalition operations with partners. NATO conducted many non- article 5 operations

although its main aim was to protect its members through Article-5 collective defense operations. Because of the UNSC resolution for international community it was legal to conduct such operation however NATO always sought to have more participants from outside it member in order to get more legitimacy in these operations. As the initial coalition did, NATO led coalition included Arab nations due to sensitivity to conduct strike against an Arab nation. Qatar and the United Arab Emirates joined both initial coalition and NATO led coalition while Jordan and Morocco joined only NATO-led coalition (NATO and Libya, NATO Web). Participation of partners in these types of operations does not contribute much to the alliance from military capabilities perspectives, on the contrary due to interoperability difficulties it may even negative in some cases. But for the sake of legitimacy in the international public opinion, alliance usually seeks to have more partner joined coalition even in small contributions.

Perceptions of a military intervention of foreign forces into a sovereign state in the international public may vary as it has been in Kosovo case in 1999. In this operation NATO air strikes started in Kosovo before a UN mandate authorizing intervention was issued when the Serbian regime severely oppressed civilian population. This operation, without of a UN mandate, was legally not justified, however morally accepted by the international community thus the UN rushed to issue a mandate authorizing NATO operations in Kosovo. Perceptions of a military intervention of foreign forces into a sovereign state in the international public may vary as it has been in Kosovo case in 1999. In this operation NATO air strikes started in Kosovo before a UN mandate authorizing intervention was issued when the Serbian regime severely oppressed civilian population. Success criteria are different than being able to carry out an operation. An operation from perspectives of military and political planning and execution can be successful however it may be unsuccessful when the end-state in the operation area is assessed. This aspect is discussed in the next subheading.

### **3. Assessment of intervention:**

International military intervention in a sovereign country is a rather new phenomenon, which we witnessed frequently after the end of the cold war when failed states and internal conflicts led to civil wars and humanitarian sufferings in many parts of the world. There has been a tendency for gaining legitimacy from moral perspectives in international community as long as these interventions serve humanitarian ends instead of economic or military strategic goals of the intervening powers. This kind of use of power has been assessed legitimate within the context of international norms and regulation if it is done within a framework of a UN authorization. Although there are no criteria for assessment of a military intervention by a coalition or an organization like NATO it can be assessed from some viewpoints. Political will, the UN mandate, planning of the operation, execution and the reached end state can usually be listed as success criteria.

#### **Political will and the UN mandate:**

As for Libya case political will by several states has been clearly expressed and international community has been convinced on an intervention to stop unhuman sufferings of the people in Libya. It was evident that in the case of non-intervention there could have been a humanitarian tragedy in Libya since government forces bombing and attacking protesters using heavy weapons and military fighter jets in many cases. This led the international community to bring this issue to the UN and it was possible to get a UNSC resolution which authorized the members of the UN to initiate an intervention in a rather short timeframe. This achievement was a clear indication of the international public's approval. Clashes between the government forces and protesters started in February and it was possible to agree on a resolution at the UN in the same month to urge Libyan government to stop violence against people and issue another resolution in March authorizing international military intervention. When compared with previous cases, the UN in this case has been quick to develop and approve a resolution for intervention. Before NATO led coalition intervention there was an ad hoc coalition operation conducted and led by the U.S. This operation lasted around ten days and handed over to NATO afterwards. International community in this case reacted faster than expected. On the other hand, the need for sustained flow of oil production for the world economies and the fact that Libya possesses the

4% of OPEC region proven crude oil reserves (OPEC share of World crude oil reserves, 2016) cannot be underestimated in this quick decision and move.

### **Planning and execution of the operation:**

Military operations in a foreign soil require a great deal of capabilities mainly in terms of command and control, fighting capabilities (platforms, weaponry e.g.) and logistics. Initial operation, done by a multinational coalition led by the US, was planned rather fast and executed successfully due to existing US military presence as platforms in the region and geographical proximity of France and other bases uses in this operation. It was a limited operation in mission and scope since it included only aerial capabilities like military aircrafts and missiles fired from several platforms. When the operation was taken over by NATO same capabilities were used in addition to other assets provided by the allies. For this reason the change of command and control authority has been a seamless transition between the multinational coalition and the NATO led coalition.

The NATO alliance has enough capability to plan and conduct an operation like this one in Libya. These capabilities include war fighting capabilities as well as command and control and sustainable logistic assets. The alliance has adequate experience in non-Article 5 operations due to several missions conducted since the end of the cold war. Since this mission did not include boots on the ground it was not necessary to generate land forces, which has been difficult part for the alliance in planning these missions in the past for the alliance task force.

It was assessed by the planners that arms embargo, no-fly zone and air strikes would be sufficient for supporting opposition forces in Libya and stop humanitarian violence done by the regime forces. It has not been a complex and difficult job for the alliance forces to carry out these missions due to absence of a robust and capable adversary in Libya. After conducting numerous air strikes in Libya by the end October 2011 the alliance decided to end the mission and since last strongholds of the regime fell and Gaddafi was killed. It may well be argued that overall from purely military perspective, military operations were planned and conducted successfully however general assessment of the intervention can be concluded differently.

### **The End state:**

The Alliance successfully conducted all spectrums of operations in Libya and managed to stop government forces from attacking civilian population and populated areas. Air forces and military capabilities of the regime became mainly inactive. A suitable environment for the humanitarian organization to perform their duties was achieved. From a humanitarian perspective it can be assessed that the immediate threat for people has been removed and violence ceased. This was a snapshot picture of the situation in Libya. It is necessary to evaluate the process after this intervention and draw a conclusion. This operation did not require land forces in Libya unlike many of the mission conducted previously in different parts of the world. A military force with a no boots on the ground policy can only succeed in areas where mature and functioning social institutions are in place but temporarily inactive due to oppressed regimes or authorities. Libya –consisting of an ethnically mixed society- potentially had many interests groups and there were not democratic institutions. The problem in terms of democracy was not just the security or oppressive regime. Necessary institutions simply did not exist. It was evident that the state authority would be questionable among the several power groups. As for many regimes in these regions powerful governments were able to unite several ethnic and religious sectarian groups together and exert harsh state power to provide stability in the country. This has been a socio-political fact for many countries due to several reasons.

After the oppressive regime in Libya was overthrown, elections were held for parliament in 2012 and General National Congress (GNC) replaced Libya's National Transitional Council (NTC), which was the country's interim legislative body that was established days after the beginning of a popular uprising against Col Gaddafi. (BBC news, 7 July 2012). Despite hopes for democratic development it was not possible to satisfy the population due to the differences in opinion in the new government and turmoil started after 2014 that endangered political stability and security in country. Unsurprisingly, the Islamic State (or ISIS) and other radical religious groups have taken advantage of the country's

political instability, effectively turning Libya into a safe haven and breeding ground for extremists. (Miller, and Truitte, July 18, 2017). Clearly ISIS and other radical terrorist organizations benefited from this instability and power vacuum. In September 2017 the U.S air power backed Libyan Forces were able to get control back of the town Sirte that was seized by ISIS militants in 2015 (Smith, Sep 25 2017). They still operate and use Libyan soil yet not active as they used to be.

By 2017 political chaos continued and three competing governments existed in Libya. General National Congress, House of Representatives and UN backed Government of National Accord (GNA). Expected democracy and freedom are not there yet. Political, ethnic and tribal fragmentation still has the potential for full scale of civil war and instability. The country faces the risk of division. To unify to rival governments namely GNC and HoR the UN initiated a plan to bring them together under one authority and formed third government GNA. GNA is backed by the UN is formally recognized government and authority of Libya; however GNA is still far from having full control and sympathy of the society. As a result there is no central authority and fragmentation can be seen in all aspects of life. *"We are fearing the disintegration of the state,"* said parliament's deputy speaker, Mohammed Ali Shuhaib, who spent 10 years in political prison under Gaddafi (Stephen, 16 February 2015). The unstable security situation in country still has the potential to spill over to region. Egypt involvement by bombing several targets in Libya after killings of Egypt Christians in the beginning of 2015 was a clear sign of this potential. (Tolba, Bayoumy, February 16, 2015).

From economic perspective Libya is far behind the level it has been before the crisis. Libya had a sizeable income through its energy sources and it has the largest proven oil reserves in Africa (U.S. Energy Information Administration, 2016). Oil production, which is major source of income for Libya, decreased and oil industry infrastructure damaged due to civil war. Many oil tanks were destroyed and pipelines corroded and need replacement. All these developments made economy stall as the major cities are like war zones. Oil production today stands at 715,000 barrels a day, although, the highest level in three years it is still a low level. Before the 2011 revolution it was 1.6 million barrels a day (Wintour, 26 Jan 2017). Libya's GDP per capita (ppp) in 2010 was 35,139 USD whereas in 2016 only 8,678 USD (IMF Report, 2017) which amounts to less than one fourth. Distribution was never equitable however Libya was one of the wealthiest economies in Africa. Many foreign companies with a large foreign workforce were operating in several sectors as well as energy sector in Libya. When it comes today, many foreign companies are reluctant to conduct business in Libya over security concerns. Direct foreign investment fell from 2,7 bn. USD in 2010 to 0,9 bn. USD in 2014 (Libya - Foreign direct investment). Prices of almost all commodities continued to increase over the first half of 2017, which further depleted the purchasing power of the population. Inflation rate increased up to 28.5 percent over 2017-H1 whereas it was 25.9 percent in 2016 (The World Bank, 2017). All in all there are considerable losses in terms of economy, which is one of the very important factors leading a society to turmoil and conflicts. Economic facts and figures clearly show that Libya is not better off than before Libyan revolution and international intervention.

Social life faces difficulties as there are several political authorities within the country and migrant crises are still ongoing due to instability in the country. Naturally crime organizations as well as terror organizations are benefitting from this situation. Due to social collapse people search their destiny in welfare state in Europe. Thousands of people tried to cross Mediterranean to reach Italy and other European countries by boats as many of them died at sea during this endeavor. Due to weak governance and security Libya has also been a gateway to Europe for migrants from the Middle East and Africa. Facing a big migrant crisis Europe developed plan and funded Libya to take measures to stop these migrants in Libya that created other inhumane situation for these refugees as they exposed to harsh conditions in Libya. There are even claims that slavery is another risk that migrants face. Migrants are sold for \$200 or \$500 and are held on average for two to three months, Othman Belbeisi, head of the International Organization for Migration (IOM) Libya mission, said in Geneva (Reuters, 11 Apr 2017). Ironically migration crisis, which was one of the reasons for this military intervention in Libya, continues to exist after mission accomplished successfully.

#### 4. Conclusions

A functioning democracy is not something that can be established in a country overnight. Without an educated society and necessary institutions in place it does not function as it is expected. Overthrowing authoritarian governments and institution has brought only chaos to many countries in the Arab world. Those old regimes were mainly corrupt, however power vacuums are always filled with some other forces and in many cases they were filled by some more problematic forces. Once all institutions like law enforcement, judiciary, education and healthcare were dissolved, chaos, conflict and lawlessness flourish within a society. Transformation of societies is not a natural science. It involves many aspects which usually cannot be estimated beforehand. Same procedures and methods may have different results when applied to different societies and geographies. Each and every society and geography is unique and needs to be evaluated and assessed differently.

After seven years of intervention for peaceful and free society political turmoil continues and Libya still has to establish a new constitution and hold fair and free elections. Both of them were planned to be realized in 2018. For a stable environment governments are expected to fulfill the needs of the society such as a functioning justice system, building security forces and delivering basic services such as healthcare. Situation in Libya after this intervention is far from meeting these expectations. In addition Libya needs to rebuild destroyed areas, recover from stagnation of economy where foreign capital is still reluctant to invest since existing administration cannot guarantee security. More importantly the country has the risk of physical division in addition to severe security concerns.

International intervention in Libya did not prove a success story when it is evaluated with the current picture within the country in the light of the above mentioned factors. The mission was limited to an arms embargo at sea, no fly-zone in Libyan airspace and aerial attacks on the selected targets in Libya. Overthrowing the existing regime and elimination of Gaddafi was seen as an end of the struggle. In fact given the fragmented structure of the Libyan society and the lack of democratic institution, it was the beginning of the struggle as seen in the aftermath of the international military intervention. The international community should take necessary lesson from this incident. Intervention without boots on the ground was a choice that was appreciated by the participating and force contributing nations, however it did not brought the expected results to the country at the end of the mission. Military intervention in a rather short time successfully resulted in overthrowing the existing regime nevertheless subsequent assistance that needed to be provided by the international community in political, economic and societal areas was insufficient or nonexistent in many cases. Political agenda differences of the intervening nations are another stumbling block for the success of these interventions. Ideal expectation of the international community which is to serve common goals of the humanity has to compete with the leading countries interests regarding the intervention.

As previous cases shown intervention in a conflict, whether in an ethnic interstate conflict or in a failed state and oppressive regime, needs to be followed by international assistance in many areas. This issue was not unknown by the international community however it has been difficult for many countries to contribute to these kinds of the international intervention missions when they get no real benefit to compensate the price of their contribution. With such interventions the leading big states can pursue their economic and political interests however this is not valid for many other countries. Thus, the international community generally is reluctant to pay the price emanating from the internal conflicts and failing states. When the international interventions in the last thirty years are assessed against the reached end-states, it may be concluded that they were successful in the Balkans (1990s) in this sense whereas, Somalia (1990s) Afghanistan and Iraq (2000s) were troublesome examples. They prove that each case is unique and there no "one fit to all" solution in terms of the international interventions. Although a good deal of experience and knowledge gained in this area, there is a long way to go for the international community to conduct successful intervention if and when necessary.



## References

- Abdessadok, Z., (30 May 2017) Libya Today: From Arab Spring to failed state, Aljazeera, Retrieved at January 04, 2018, from <http://www.aljazeera.com/indepth/features/2017/04/happening-libya-today-170418083223563.html>
- BBC news, (7 July 2012) Q&A: Libya's General National Congress election, Retrieved at December 25, 2017 from <http://www.bbc.com/news/world-africa-18341022.html>
- Howard, P. N., Duffy, A., Freelon, D., Hussain, M. M., Mari, W., & Maziad, M. (2011). Opening closed regimes: what was the role of social media during the Arab Spring? Retrieved at December 18, 2017 from <http://philhoward.org/opening-closed-regimes-what-was-the-role-of-social-media-during-the-arab-spring/>
- International Monetary Fund (IMF) reports (2017) Retrieved at December 22, 2017 from <https://www.imf.org/external/pubs/ft/weo/2017/01/weodata/weorept.aspx?pr.x=33&pr.y=10&sy=1980&ey=2016&scsm=1&ssd=1&sort=country&ds=.&br=1&c=672%2C111&s=PPPPC&grp=0&a=>
- Libya - Foreign direct investment Retrieved at January 05, 2018 from <https://www.indexmundi.com/facts/libya/foreign-direct-investment>
- Miller E. and Truitte K., (July 18, 2017) Filling the Vacuum in Libya, Retrieved at December 12, 2017 from <https://www.foreignaffairs.com/articles/libya/2017-07-18/filling-vacuum-libya>
- NATO and Libya (NATO Web) Retrieved at December 03, 2017 from [https://www.nato.int/cps/en/natolive/topics\\_71652.htm](https://www.nato.int/cps/en/natolive/topics_71652.htm)
- OPEC website: OPEC share of World crude oil reserves, 2016 Retrieved at November 20, 2017 from [http://www.opec.org/opec\\_web/en/data\\_graphs/330.htm](http://www.opec.org/opec_web/en/data_graphs/330.htm)
- Reuters news (19 March 2011) Retrieved at December 21, 2017 from <https://www.reuters.com/article/us-libya-sarkozy-speech/sarkozy-says-air-forces-in-action-over-libya-idUSTRE72I2LG20110319>
- Reuters news (11 Apr 2017) Migrants traded in 'slave markets' in Libya, U.N. agency says. Retrieved at December 08, 2017 from <https://www.reuters.com/article/us-europe-migrants-libya/migrants-traded-in-slave-markets-in-libya-u-n-agency-says-idUSKBN17D11B>
- Smith, A., (17 Sep 2017) ISIS in Libya: Trump Orders First Airstrikes Near Sirte, NBC news. Retrieved at November 12, 2017 from <https://www.nbcnews.com/storyline/isis-terror/isis-libya-trump-orders-first-airstrikes-near-sirte-n804461>
- Stephen, C., (16 February 2015) Libya's Arab spring: the revolution that ate its children, The Guardian News, Retrieved at November 21, 2017 from <https://www.theguardian.com/world/2015/feb/16/libyas-arab-spring-the-revolution-that-ate-its-children>
- The United Nation Security Council Resolution 1970 (26 February 2011) Retrieved at December 13, 2017 from [http://www.un.org/en/ga/search/view\\_doc.asp?symbol=S/RES/1970\(2011\)](http://www.un.org/en/ga/search/view_doc.asp?symbol=S/RES/1970(2011))
- The United Nation Security Council Resolution 1973 (17 March 2011) Retrieved at November 03, 2017 from <http://www.securitycouncilreport.org/un-documents/document/Libya%20S%20RES%201973.php>
- The World Bank (2017) Libya's Economic Outlook - October 2017, Retrieved at December 04, 2017 from <http://www.worldbank.org/en/country/libya/publication/libya-economic-outlook-october-2017>
- Tolba, A., Bayoumy Y., (February 16, 2015) Reuters news. Retrieved at November 21, 2017 from <https://www.reuters.com/article/us-mideast-crisis-libya-egypt/egypt-bombs-islamic-state-targets-in-libya-after-21-egyptians-beheaded-idUSKBN0L110D20150216>

- Townsend, R. M. (2015). *The European Migrant Crisis*. Lulu. com. Retrieved at December 05, 2017 from [https://books.google.com.tr/books?hl=en&lr=&id=612SCgAAQBAJ&oi=fnd&pg=PA1&dq=%E2%80%A2+Townsend,+R.+M.,+\(2015\).+The+European+Migrant+Crisis.&ots=m\\_gqGiOCNq&sig=-oGXYE3BuAuqY-lCyLIrjvOK5gE&redir\\_esc=y#v=onepage&q&f=false](https://books.google.com.tr/books?hl=en&lr=&id=612SCgAAQBAJ&oi=fnd&pg=PA1&dq=%E2%80%A2+Townsend,+R.+M.,+(2015).+The+European+Migrant+Crisis.&ots=m_gqGiOCNq&sig=-oGXYE3BuAuqY-lCyLIrjvOK5gE&redir_esc=y#v=onepage&q&f=false)
- U.S. Energy Information Administration, 2016. Crude Oil Proved Reserves. Retrieved at December 12, 2017 from <https://www.eia.gov/beta/international/?fips=LY>
- Wintour, P., (26 Jan 2017) Libya calls for west to invest in oil industry to help 'unify' the country, The Guardian. Retrieved at December 18, 2017 from <https://www.theguardian.com/world/2017/jan/25/oil-investment-moral-authority-libya-west-mustafa-sanalla>



# **Conflicting Roles of Turkey in the Middle East: Foreign Policy of Justice and Development Party and the Arab Spring**

Yucel Bozdaglioglu, Hikmet Menguaslan

## **1. Introduction**

Turkey since its foundation, have been a relevant actor in the Middle East. In this regard, without hesitation, Turkey can be categorized as a regional power in the Middle East. Considering foreign policy orientations of Turkey in the Middle East, however, is not as a self-revealing task as it seems. For firstly, Turkey's relations with the Middle East has been quite contingent. To illustrate, during the first years following foundation, it can be argued that Turkey adopted isolationist policies and was mostly indifferent to the developments in the region (Mango, 1957, p. 149-150); Therefore, it is not surprising, considering the growing interest in the Middle East recently, that it has been discussed to be overly *Middle Easternized* (Oğuzlu, 2008; Öniş, 2011). Similarly, a transformation in the self-imagination of Turkey, even though it is clearly denied by state elites (Davutoğlu, 2009), has been a lively debate of the time.

Since factors such as self-images of leaders, national role conceptions and the international position of state, have quite a huge determining effect on the foreign policy orientations of state, possible changes or shifts on these attributes have better been identified and examined in order to comprehend not just outcomes at the surface but also underlying mechanisms which generate social dynamics in foreign policy preferences of state.

With a systemic level of analysis or overly structural perspective as in neorealist and systemic constructivist approach, in this regard, it falls short of the expectations from a comprehensive and insightful examination of foreign policy preferences of state. Since such a perspective would arbitrarily separate structural and unit level dynamics, it would underestimate these factors in analysis calling them unit level factors (Waltz, 1979). Therefore, unlike neorealist and systemic constructivist approaches, role theory perspective is significant in the sense that it tries to bring together unit level factors without underestimating the influence structural context on foreign policy making (Holsti, 1970).

In this paper, with role theory perspective, JDP government's Middle East policy, especially during the Arab Spring, is going to be examined and along with systemic role prescriptions, JDP's role conceptions in the Middle East are attempted to be outlined. Through role performance, to what extent and how these role conceptions are conflicting with each other are the main questions that shaped the analytical focus of the paper. In the first section, therefore, a brief introduction to role theory and its concepts are presented. How role theory can be applied to foreign policy analysis and in which ways it prevails over the structural-systemic approaches is discussed in the first section, as well. In the second section, then, JDP government's conflictual role performance in the Middle East is going to be evaluated in regards to the "role conflict" concept. The interaction of international-regional and domestic dynamics is argued to provide the environment in which JDP government is prevented from acting out the national role conceptions.

## **2. Outlining Foreign Policy Orientations through National Role Conceptions: The Foreign Policy Preferences of JDP and the Arab Spring**

Criticizing those that do not have a systemic approach and stuck with the complexity of unit level factors, Waltz, for the sake of a parsimonious and simplistic theory, wrote his famous book "*Theory of International Politics*", and attempted to present a structural analysis of international system (Waltz, 1979). In his book, Waltz stated that under the anarchical environment's pressure, states are functionally undifferentiated units; and since they are unitary-rational actors, they are expected to react similarly under the structural constraints for the purpose of maximizing their utilities. On this

context, any change or determining factor on state's foreign policy behaviors are better searched on the organizing principles of the structure which is the *distribution of material capabilities* (Waltz, 1979, p. 74-84; Mearsheimer, 1990). In other words, while examining foreign policy behavior of the states, neorealists just focus on the systemic change of relative power in terms of material capabilities.

Such narrowly focused analysis has been challenged by many theoretical approaches. Systemic constructivist approach of Wendt asserts that the fixated understanding state identity along with fixated assumptions of anarchy result with misleading outcomes and creates incongruity with empirical reality. What is offered by systemic constructivism is that states do not have fixated identities, yet the realist assumption of utility maximizing is one of many depending on mainly the nature of interaction in the system (Wendt, 1992). Still the undertheorized part of this perspective is unarguably the origins of state preferences and identity before interaction. Secondly, the interaction of domestic and international has the potential to complement the systemic-structural perspectives.

In this regard, role theory perspective is among those that criticize neorealists as structurally determinist and as ignoring the unit level factors which definitely cannot be denied to have determining effect on the foreign policy preferences of states. Holsti with his seminal article (1970) attempted to present a framework that have the potential to analyze unit level factors that affect foreign policy making process while at the same time without underestimating the structural context of states system. Secondly, bridging the gap between systemic interaction and unit level factors is one of the possible contributions of role theory. Analyzing the relation between the concept of corporate identity and role conceptions can provide insightful perspectives upon the foreign policy preferences of states.

Originated in the 1920's and 30's, role theory, firstly employed by sociology, social psychology and anthropology, focuses on the human behaviour and while examining human behaviour, brings forward concepts such as roles, expectations, social status and identity, social structure (Adigbuo, 2007, p. 88). Role theory assumes that individuals act in certain and predictable manner depending on their social identities and context (Biddle, 1986, p. 68).

Role as a conceptual term has already been used in the foreign policy analysis and contains various meanings such as function, expected behaviour, and foreign policy decision (Le Prestre, 1997, p. 3-4). On the one hand, roles represent conceptualization of national identity and recognition for the states in the international arena (Le Prestre, 1997, p. 5). On the other, roles help states to satisfy their cognitive needs in the sense it provides a guideline for states to finding their way in the complex environment and carry out their complicated daily transactions in the best way (Chafetz et al., 1996, p. 733). To illustrate, roles provide a necessary feeling of identity for the states in the international arena. Once adopted and confirmed, role conceptions start to have a certain influence on foreign policy preferences of states; and through a mutually constructive process in the social structure, expectations and behaviors of other actors as well are affected (Holsti, 1970, p. 233; Barnett, 1993, p. 272).

As equally crucial as stating the importance of the role conceptions on state's foreign policy making is understanding how role conceptions are formed and adopted, what the most essential factors are that shape the framework of the role conceptions. However, there is not a strong consensus on this issue. There are those who prioritize the other's behaviors and expectations (Magid, 1980) while those who have a more holistic approach and analyze both self and other's conceptions (Thies, 2010, p. 3-4; Harnisch, 2011). Holsti, nevertheless, underlines the national role conceptions and emphasizes the other's influence on the formation of self-conceptions (Holsti, 1970, p. 237). Parallel to that, for Holsti, roles are defined as perceptions of policy makers about their state's position in the system and of decisions, norms, actions (Holsti, 1970, p. 245-246).

Before outlining JDP government's role conceptions in the Middle East and evaluation of the role performance with reference to concept of role conflict, in the next section, the conceptual framework of role theory is going to be provided and concepts *role conception*, *role performance*, *role conflict* are going to be defined.

## 2.1. A Conceptual Framework: Role Conception, Role Performance and Role Conflict

Which role is adopted by a state in international system is a process determined by both self (state/decision makers) and other's (other actors in the international system) contribution. Chafetz

(1997, p. 664) defines three main factors *material factors, perception of reality and specific social context* that have influence on formation of the national role conceptions. Holsti makes a categorization between these factors and introduces role prescriptions for the purpose of analyzing expectations of others with regards to certain role (Holsti, 1970, p. 270). Whereas, the perceptions on function and intended position of state which is represented by the state leaders, decision makers about the state they represent, comprise the national role conceptions (Holsti, 1970, p. 245-246). Obviously, national role conceptions can be considered as an analytical unit that is shaped by mutual relations between systemic and unit level factors, in other words, perceptions of the state representative that determines the guidelines for states foreign policy framework depend on the both others' expectation from self and self's own conceptualization about itself. In this respect, role conceptions and role expectations become quite a useful analytical tool in the analysis of foreign policy preferences of the states.

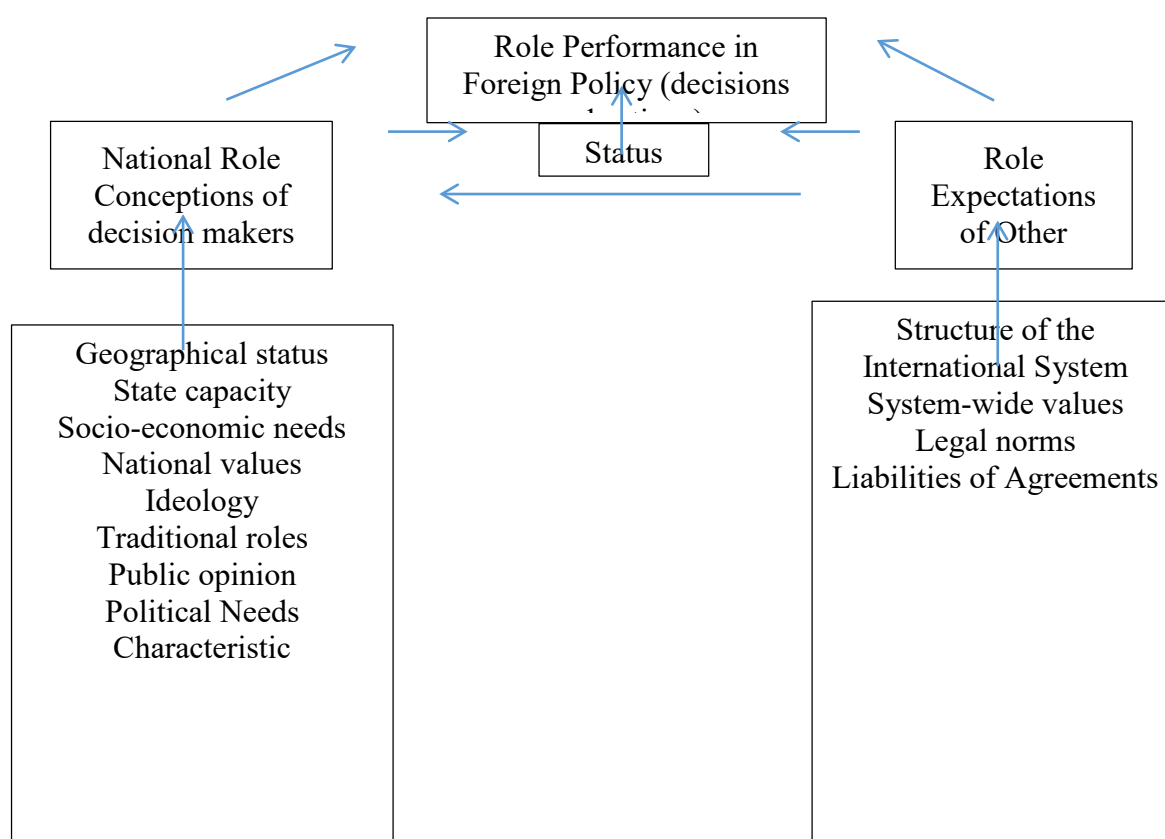
As equally important as outlining the formation of the national role conceptions, examining how these roles are executed in the international sphere is insightful for making sense of the foreign policy orientations of a state (please, look at Figure 1). Furthermore, evaluating role performance enables one to analyze various issues such as to make an order between national role conceptions, to see whether role conceptions are confirmed in the international system and certainly, how these conceptions are operationalized. Similarly, by looking at role performance, one can trace the role conflicts which are an analytical unit to measure for instance, whether state continue to employ certain role conceptions or to which direction a certain role conception evolve or shift.

States generally have more than one role conception in the international system. For Chafetz (1997, p. 664) which role is applied on a certain context depends on the *salience* and *centrality*. In other words, state leaders and decision makers' perceptions on the specific context largely shape the role conceptions or their decision upon which role to choose. In this regard, role conflicts might happen due to many reasons, to name the most two important ones:

- Conflicting requirements of roles which is formed by domestic and international dynamics
- Change in the conditions that at the first place lead to the emergence of the role conceptions and prescriptions (Barnett, 1996, p. 411-412; Aggestam, 2006, p. 23).

Conflicting roles cause role conceptions or prescriptions to change or shift. Yet it should not be forgotten that it is a process determined by the interactions systemic and unit level factors. With this conceptual framework, in the next section, JDP government's national role conceptions in the Middle East during the Arab Spring are attempted to be outlined and by evaluating the execution and operationalization of these conceptions, role conflicts in the JDP's Middle East policy are demonstrated.

**Figure 1: Role Performance in Foreign Policy** (Holsti, 1970, p. 245)



### 3. The Interaction of Role Prescriptions and Conceptions: JDP's Conflictual Role Performance during the Arab Spring

National role conceptions of Turkey have experienced quite a radical transformation with JDP's come to power in 2002. The ideological framework of this transformation can best be seen in the "Strategic Depth" doctrine by Ahmet Davutoğlu, who had executed positions such as Prime Minister and Minister of Foreign Affairs in the JDP government. Davutoğlu states that to rise again as in the Ottoman past, Turkey should not ignore the historical legacy of her and should not cut ties with Muslim geography, especially the Middle East region (Davutoğlu, 2011, p. 70). This striking divergence in national role conceptions makes sense when we look at the transformation in the corporate identity. The attributes of official identity of Turkish foreign policy were "western oriented, secularistic, reformist, status-quoist, and isolationist". While with JDP government came to power, the new identity, the conservative democrat, is constituted by "multi-lateral, multi-dimensional, reformist, pragmatic, revisionist and active" (Mengüaslan, 2016). In regards with transformation in corporate identity, the role conceptions which give us clue about the foreign policy preferences of JDP government are again related to being active in foreign policy and quitting just reactive policies (Davutoğlu, 1998). An active Turkey in foreign policy might have the potential to fulfill its diverse ambitions and for this purpose it is an obligation to have a multi-dimensional foreign policy (Davutoğlu, 2012, p. 1). Along with that, the senior government officials had a busy visiting schedule in various countries and especially Ahmet Davutoğlu participated in multilateral meetings in regards with regional problems, which demonstrates the enthusiasm JDP government had in regional issues. Similarly, the central state role conception allowed Turkey to continue its multi-lateral relations without harming the role conceptions and relations with anyone. Isolationist stance was quitted in this period and Turkey started to involve more in regional issues as a regional power and leader country. In regards with the capabilities of Turkey, the role model conception was brought forward and EU candidacy was promoted in the region. In this regard, the facilitator-intermediator role conception contributed to Turkish image in the region, such as Palestinian issue and Iranian nuclear deal. All these preferences were shaped in the context of Turkey's NATO membership and EU candidacy.

The expectations against the new role conceptions of JDP government created enabling context at the first glance. Turkey became a strategically important actor in the regional policies of global powers such as USA and EU. And in the regional level, Turkey has increased its soft power capacity in the sense of being an attraction center as EU candidate Muslim power (Robins, 2013, p. 383-384).

To illustrate the international and regional context during this period, first thing that should be mentioned is the changing attitude of the USA against the Middle East. With 9/11 attacks on USA, fight against terrorism and weapons of mass destruction were the issues rising top in the agenda of Bush government (NSS, 2002). Furthermore, Bush government and Neo-cons adopted the pre-emptive war strategy (Hook and Spanier, 2014, p. 286-292). This resulted in recalculations of strategies for all the powers interested in the region. For the US, the invasion of Iraq and the rise of Turkey as role model which contributed to Turkey's strategic-logistic importance.

From EU perspective, cooperative policies with US prevailed. Structural policies such as Mediterranean Initiative aimed to improve the dialogue between EU and the region. However, the main role adopted by EU in the region seemed to be like facilitator and mediator rather than any hardline policies (Wittes and Youngs, 2009, p. 7-15).

In the regional level, however, there has been increasing anti-westernism and anti-US attitude because of especially the democracy promotion policies and in result, the desired stability just went further away (Ehteshami, 2007, p. 130-136). Another development that exacerbated the heat of instability and triggered the underlying fault lines in Middle East societies has been the transnational issue of the Arab Spring whose effects spread almost every aspect of the region.

Considering the general role conceptions and role expectations that shaped the roles of JDP government in Middle East, the main roles adopted by the elites of JDP has been *central power, regional power, leader, model, loyal ally* (Mengüaslan, 2016, p. 105-118).

A general outlook on the execution of these roles points us to possible role conflicts for role performance of JDP in the Middle East. First of all, roles like central power and leader refer to

independency and autonomy in the foreign policy orientation; nonetheless, adopting a role such as loyal ally (for instance, in the context of NATO) which means certain liabilities and responsibilities creates burden on the independency and autonomy of JDP, which showed itself a certain source of role conflict during the Arab Spring process.

A second significant source of role conflict for JDP in the region has been the overly ambitious roles like central power and leader. On the one hand, Turkey managed to change her image as the agent of the West in the regional level and it enabled her to follow her policies successfully (Altunışık, 2008, p. 47-48).

On the other hand, since Turkey's material capabilities is relatively limited and she depends on its soft power in the sense as a model to the regional countries and historical bonds with the Muslim population in the region since the Ottoman times, the projection and operationalization of this power has not been as smooth as desired. For most of the time, Turkey's attraction as a leader relied on her soft power and the regional acceptance of her soft power (Altunışık, 2008).

A good example on the limits upon the capabilities of Turkey in the region was the denial of Turkey's mediation offer between Hamas and el-Fetih. A greater example that points to the limited capacity of Turkey's leadership, in the sense that determining the agenda of global politics, was Turkey's objection to the sanctions against Iran during the temporary membership in UN Security Council. Even though Turkey spent quite huge efforts to persuade other members, the result was a shocking failure for Turkish government (İnat and Telci, 2011, p. 72-75).

The main source of role conflict for JDP emerged from the regional context fraught with instability and unpredictability during the Arab Spring protests. Turkey as a model with her democratic institutions for the region, sided with Libya's leader Qaddafi while protests began in Libya and objected to possible NATO intervention, however, once it became clear that there would be an international intervention into Libya, Turkey gave up its objections. Similar failure has been experienced in Syrian case, as well. JDP government, contrary to initial partnership, broke the relations with Syria once the Arab Spring spread off to Syria. However, depending on the undesired results or in other words, failure to achieve the expected results, Davutoğlu stated that there had been a shift to precious isolation policy from the zero problem policy (Davutoğlu, 2013), which underlines the severity of conflict in the role conceptions of JDP in Middle East.

For a country aspiring for leadership in the region and claiming to achieve improving its relations with all regional actors, deterioration in relations with Israel and Syria in this respect was quite a significant problem, for at the end, it would harm the capacity of attraction and soft power of Turkey in the region. Especially the Syrian quagmire blew off the Turkish image and created striking conflicts in Turkish role conceptions.

As a last but not least example, JDP government's role conceptions such as being a model in the region, even though it was promoted by US and EU really hard for a certain period, showed to be ineffective considering the post-Arab Spring period. Only in Tunisia, a regime type similar to Justice and Development Party emerged (Torelli, 2012). However, it could not become powerful as intended.

#### **4. Conclusion**

This paper tries to analyze JDP government's role conceptions in the Middle East region from a role theory perspective. It criticizes the neorealist overly structural focus while explaining the foreign policy behaviour of the states. Furthermore, neorealism's unitary and functionally undifferentiated actor assumption about state is challenged in the sense that it ignores the unit level factors such as the perceptions of the state leaders and decision makers. Similarly, since the systemic constructivist approach underestimates the domestic factors and corporate identity, it can be argued as weak in regards with the impact of domestic level factors on systemic identity which gives us clue about the foreign policy preferences of a country. On this context, role theory perspective attempts to analyze the effect of unit level factors such as the ideologies and perceptions of the state leaders while without denying the effect of external factors and structural position. Role theory presents an analytical framework with which foreign policy analysis can examine the unit level factors under a systemic approach.



The conceptual framework of role theory perspective enables one to analyze how the foreign policy orientations of the state leaders can be operationalized in the sense it focuses on the national role conceptions. At the same time, role expectations of other actors in the system included in the analysis which empowers the explanatory capacity of the model.

JDP government's national role conceptions in the Middle East are examined with this conceptual and analytical model. How the national role conceptions are formed through role conceptions and role expectations is analyzed and the foreign policy roles of the JDP government are outlined as *central power, regional power, leader, model, loyal ally*. Then, the execution and operationalization of these roles are evaluated for tracing possible sources of role conflicts in JDP's Middle East Policy.

As mentioned in the first section, the framework of the roles is formed by domestic and international institutions, which at the end creates the source of conflict itself for the foreign policy of the country. For Turkish case, we see that JDP's ideology and claim of historical legacy with Muslim population in different parts of the world are considered to empower the soft power capacity and to create a source of attraction. However, the projection of this capacity would not be as smooth and easy as it was thought and JDP government had difficult times in the region. It is obvious in example of Turkey's strong but failed objection to the UN sanctions against Iran. Secondly, the changing conditions which at first created the context for the formation of a certain role conceptions are another source of conflict in the performance of the roles. It is clear in the deteriorated relations between Turkey and Syria.

## 5. References

- Adigbuo, R. (2007). Beyond IR Theories: The Case for National Role Conceptions. *Politikon*, 34 (1): pp. 83-97.
- Aggestam, L. (2006). Role Theory and European Foreign Policy: A Framework of Analysis. In Elgstrom, O. and Smith, M. (Eds.), *The European Union's Roles in International Politics: Concepts and Analysis* (pp. 11-29). London: Routledge.
- Altunışık, M. B. (2008). The Possibilities and Limits of Turkey's Soft Power in the Middle East, *Insight Turkey*, 10 (2): pp. 41-54.
- Barnett, M. (1993). Institutions, Roles and Disorder: The Case of Arab States System. *International Studies Quarterly*, 37 (3): pp. 273-296.
- Barnett, M. (1996). Identity and Alliances in the Middle East. In Katzenstein Peter J. (Ed.), *The Culture of National Security Norms and Identity in World Politics* (pp. 400-447). New York: Columbia University Press.
- Biddle, B. J. (1986). Recent Developments in Role Theory. *Annual Review of Sociology*, 12: pp. 67-92.
- Chafetz, G. et al. (1996). Role Theory and Foreign Policy: Belarussian and Ukrainian Compliance with the Nonproliferation Regime. *Political Psychology*, 17 (4): pp. 727-757.
- Davutoğlu, A. (1998). The Clash of Interests: An Explanation of the World (Dis)Order. *Perceptions*, 2 (4).
- Davutoğlu, A. (2001). *Stratejik Derinlik*. İstanbul: Küre Yayınları.
- Davutoğlu, A. (2009). *2009 Değerlendirme Toplantısı*. T.C. Dış İşleri Bakanlığı Resmi Sitesi. Accessed date: 17.12.2016, [http://www.mfa.gov.tr/sayin-bakanimizin-2009-degerlendirme-toplantisi\\_-31-aralik-2009\\_-ankara.tr.mfa](http://www.mfa.gov.tr/sayin-bakanimizin-2009-degerlendirme-toplantisi_-31-aralik-2009_-ankara.tr.mfa).
- Davutoğlu, A. (2012). *Principles of Turkish Foreign Policy and Regional Political Structuring*. Turkish Policy Brief Series. TEPAV.
- Davutoğlu, A. (21.03.2013). Zero Problems in a New Era. *Foreign Policy Magazine*. Accessed date: 17.12.2016, <http://foreignpolicy.com/2013/03/21/zero-problems-in-a-new-era/>.
- Ehteshami, A. (2007). *Globalization and Geopolitics in the Middle East: Old Games, New Rules*. New York: Routledge.
- Harnisch, S. (2011). Role Theory: Operationalization of Key Concepts. In Harnisch, S., Cornelia F. and Maull, H. W. (Eds.), *Role Theory in International Relations Approaches and Analyses* (pp. 7-16). London: Routledge.

- Holsti, K. (1970). National Role Conceptions in the Study of Foreign Policy. *International Studies Quarterly*, 14 (3): pp. 233-309.
- Hook, S. W. and Spanier J. (2014). *Amerikan Dış Politikası: İkinci Dünya Savaşı'ndan Günümüze*. (Translated by Tanırlı, Ö.S.). İstanbul: İnkilap Yayınevi.
- İnat, K. and Telci, İ. N. (2011). Türkiye'nin İran, İsrail ve Suriye Politikası 2010. In Duran, B., İnat K. and Özcan, M. (Eds.), *Türk Dış Politikası Yıllığı 2010* (pp. 301-332). SETA Raporu. Ankara: SETA Yayınları.
- Le Prestre, P. G. (Ed.). (1997). *Role Quests in the Post-Cold War Era: Foreign Policies in Transition*. London-Buffalo: McGill-Queens University Press.
- Magid, A. (1980). Role Theory, Political Science and African Studies. *World Politics* 32 (2): pp. 311-330.
- Mango, A. (1957). Turkey and the Middle East. *The Political Quarterly*, 28: pp. 149-153.
- Mearsheimer, J. (1990). Back to the Futures: Instability in Europe after the Cold War. *International Security*, 15 (1): pp. 5-56.
- Mengüaslan, H. (2016). *Türk Dış Politikasında Rol ve Çatışma: AKP Dönemi Ortadoğu Politikası Üzerine Bir İnceleme*. Unpublished Master's Thesis. Adnan Menderes Üniversitesi.
- NSS/National Security Strategy. (2002). Accessed date: 17.12.2016, <http://www.state.gov/documents/organization/63562.pdf>.
- Oğuzlu, T. (2008). Middle Easternization of Turkey's Foreign Policy: Does Turkey Dissociate from the West?, *Turkish Studies*, 9 (34): pp. 99-124.
- Öniş, Z. (2011). Multiple Faces of the "New" Turkish Foreign Policy: Underlying Dynamics and Critique. *Insight Turkey*, 11 (1): pp. 47-65.
- Robins, P. (2013). Turkey's "Double Gravity" Predicament: the foreign policy of a newly activist power. *International Affairs*, 89 (2): pp. 381-397.
- Thies, C. G. (2010). Role Theory and Foreign Policy. International Studies Association Compendium Project, Foreign Policy Analysis Section. Accessed date: 17.12.2016: <http://myweb.uiowa.edu/bhlai/workshop/role.pdf>.
- Waltz, K. (1979). *Theory of International Politics*. Addison Wesley Publishing Company, Inc.
- Wendt, A. (1992). Anarchy is what States Make of it: The Social Construction of Power Politics. *International Organization*, 46 (2): pp. 391-425.
- Wittes, T. C. and Youngs, R. (2009). Europe, The United States and Middle Eastern Democracy: Repairing the Breach. *Analysis Paper*. The Saban Center for Middle East Policy at the Brookings Institution.



# Financial Performance Evaluation In Turkish Banking Sector With Grey Relational Analysis Method

Durmus Sezer, Umut Tolga Gumus, Hatice Can Ozic

## 1.Introduction

Unlike other sectors, the efficient operation of the banking sector is of great importance for countries' economy, because it determines the resource allocation and undertakes financial intermediation. This has brought the banking sector to a central position in the economic development of the country. Banks are forced to use their resources in the most efficient way because of the competition in the banking sector (Ertuğrul & Birsen, 2009, p. 20). Moreover, in the financial sector conditions where the current competition are at a high level, banks are in need of comparison with their competitors in the sectors where they are in (Budak, 2011, p. 96).

Financial performance analysis is important for predicting the current situation of the enterprises and taking precautions about the future. In addition, efficiency measurement allows firms to compare themselves with competitors in the sector. Currently, Multi Criteria Decision Making (MCDM) methods are frequently used in performance evaluation.

In this study Gray Relational Analysis (GRA), which is one of the MCDM methods, was used. GRA was chosen because it is composed of simple calculation process and certain calculation steps, which yields better results with small sample volumes than other statistical analysis techniques in studies (Bektaş & Tuna, 2013, p. 187).

In this study, financial performance of five banks, traded in BIST, was compared by using GRA method between 2011 and 2015. In addition, another goal of the research is to determine which ratio is more important for the performance of banks.

In this research, the next part of the study summarizes the literature on financial performance studies using GRA in the banking sector. In the following section, the GRA method, which will be used to evaluate bank performances, is explained. In the fourth part; the aim, scope and the financial ratios used in the analysis are explained. In the fifth section, the financial performances of the five banks in the BIST are ranked according to the approach. Lastly, the results of the research are given and evaluated.

## 2.Literature

Gray relational analysis method is frequently applied in measuring and evaluating financial performance in the banking sector. For example, Chang (2006) examined the performance of 15 commercial banks in Taiwan. The liquidity, capital structure and profitability ratios between 2000 and 2002 were analyzed by using GRA. Chang (2006) found a significant relationship between the attributes and financial performance of commercial banks. Managers have to value and understand the performance and factors of commercial banks in order to decrease operating risk.

Uçkun and Girginer (2011) applied GRA in evaluating the financial performances of public and private banks. There were 3 public and 14 private banks in their study. Ziraat Bank ranked first by using 14 financial ratios in 2008. In the success of private banks, it is emphasized that the ratio related to asset quality are effective.

Dogan (2015) compared the financial performance of participation banks in Turkey by using GRA between 2012 and 2014. Albaraka Türk was ranked at the first place in terms of financial performance. As a result of the research, Dogan (2015) said that the financial performance of a participation bank can be high with high asset profitability.

Ecer (2013) conducted a study by using GRA method to compare the performance of private Turkish banks between 2008 and 2011. Garanti Bank ranked the first with its performance in terms of

12 financial ratios. As a result of the study, the asset quality has been emerged as a determinant of financial performance.

Gülen Alpay and Sakınç (2017) conducted a 10-year study in the banking sector. They evaluate financial performance of the banks before and after 2001 financial crisis. As a result of the analysis, public banks were found to show significant financial success thanks to reorganizations. It is argued that the post-crisis banking reorganization contributed to the sector at a serious level.

### 3. Grey Relational Analysis Method

Gray system theory is an effective mathematical tool for solving problems involving uncertainty. Since the day it was founded by Julong Deng in 1982, it has progressed in many disciplines (Wu, Hsiao & Tsai, 2008, p. 139). Uncompleted or unknown information was called gray information until this theory has emerged. The model contains three types of information points; black, white or gray. The main target in the system is to transfer the black points to the gray points. The gray system provides solutions to problems where knowledge is limited, incomplete, and contains ambiguity. In recent years, gray theory has become a popular technique that provides multidisciplinary approaches (Sarı et al., 2016, p. 61).

The GRA has some advantages over other statistical methods. By needing a small number of data, it is possible to produce effective results. In addition, the GRA provides better results than other statistical analysis techniques when working with small sample volumes (Meydan et al., 2016, p. 153). In addition, by converting all alternative criteria to comparable percentages it makes easier to interpret results.

Gray Relational Analysis application steps consist of 6 steps and are listed as follows (Güneysu et al., 2015, p. 79, Can Öziç et al., 2017, p. 71).

#### Step 1: Creating the Decision Matrix

A decision matrix is formed in the form of "mxn" where the decision matrix alternatives "m" and the criteria of these alternatives are shown as "n".

$$= \begin{matrix} & X_1(1) & X_1(2) & \dots & X_1(n) \\ X_{i(j)} & X_2(1) & X_2(2) & \dots & X_2(n) \\ & \vdots & \vdots & \ddots & \vdots \\ & X_m(1) & X_m(2) & \dots & X_m(n) \end{matrix}$$

#### Step 2: Creating the Comparison Matrix (Normalizing the Matrix)

In order to generate decision matrix, the data should be normalized. This process differs according to the benefit, cost and optimality.

$$X_{i(j)} = \frac{Xi(j) - \min Xi(j)}{\max Xi(j) - \min Xi(j)} \quad \text{Benefit} \quad (1)$$

$$X_{i(j)} = \frac{\max Xi(j) - Xi(j)}{\max Xi(j) - \min Xi(j)} \quad \text{Cost} \quad (2)$$

$$X_{i(j)} = \frac{I \cdot Xi(j) - X_{ob}(j) \cdot I}{\max Xi(j) - \min Xi(j)} \quad \text{Optimality} \quad (3)$$

For the purpose of the analysis, the above formulas are used and the values are written in the matrix. Reference values must be written in the first line to complete the comparison matrix. The reference series shows the greatest value among the normalized values of the criteria and is defined as follows;

$$\text{Reference series } X_o = (X_o(1), X_o(2), \dots, X_o(j), \dots, X_o(n)) \quad (4)$$

#### Step 3: Creating the Absolute Value Table

In the absolute value table, the difference between the rank number and the reference value is calculated based on the characteristics of the criteria.

$$\Delta o_i(j) = |X_o(1) - X_i(1)|, |X_o(2) - X_i(2)| \dots |X_o(n) - X_i(n)| \quad (5)$$

#### Step 4: Calculation of Gray Relational Coefficient

The Gray Relational Coefficient (GRC) is used to determine how close is the value of  $X_i(j)$  and  $X_o(j)$ .

$$K(j) = \frac{\Delta \min + \zeta \Delta \max}{\Delta o_i(j) + \zeta \Delta \max} \quad (6)$$

$\Delta \max$  = The largest change value in the sequence

$\Delta \min$  = The smallest change value in the sequence

$\zeta$  = Used to minimize the greatest value in the sequence. It is usually acceptable to take 0.5.

#### Step 5: Calculation of Gray Relationship Value

The gray correlation level is calculated by the following formula.

$$\Gamma o_i = \sum_{j=1}^n W_i(j) \cdot K(j) \quad (7)$$

$W_i(j)$  indicates the weight of the criterion. If there is no weight for items,  $W_i$  can be taken as  $1/n$ . The total weight all criteria must be equal to 1.

In the last stage, a ranking is made among the alternatives, which was the result of the multiplying criteria weights and the gray correlation coefficients. The importance of rank according to size allows to evaluate all alternatives.

## 4. Data

The purpose of the study is to evaluate the financial performance of the firms, traded at BIST, in the banking sector on the basis of the balance sheet and income table. For this purpose, five firms, listed at BIST, were selected in the banking sector. These firms were Is Bank, Garanti Bank, Akbank, Yapı Kredi Bank, and Finansbank.

In the light of the financial statements of these companies, five financial ratios are calculated which was frequently used to assess financial performance in the banking sector. The groups and formulas of financial ratios used in the study are given in Table 1 (Financial figures are taken from the official site of Public Disclosure Platform (KAP)).

**Table 1: Financial Ratios**

Ratio Groups	Ratio Formulas	Reference Criteria	Code
<i>Ratios of Capital Structure</i>	Equity Capital/Total Assets	Max	R1
<i>Asset Quality Ratios</i>	Total Credits/Total Assets	Max	R2
<i>Liquidity Ratios</i>	Liquid Assets/Total Assets	Max	R3
<i>Profitability Ratios</i>	Net Profit/Total Assets	Max	R4
	Net Profit/ Equity Capital	Max	R5

The capital structure ratio R1 shows how much of firms' assets are financed by its own capital. Particularly, the capital adequacy of the banks is very important in the crisis period. This ratio is wanted to be high.

The R2 ratio shows the credit ratio in total assets. The quality of bank assets is important because a large part of the resources of the banks bear the interest payment obligation. This ratio measures whether the bank fulfills its core function of lending. According to Uçkun & Girginer (2011, p. 56), this ratio is expected to be high in terms of asset effectiveness.

The ratio R3 represents the liquid asset ratio of the banks in total assets. The increase in this ratio points the short-term debt solvency of the banks. The R4 ratio is used to measure how efficiently assets are used. In addition, this ratio shows the profitability of the banks and indicates their management's skills. Lastly, R5 calculates to determine how much profit a bank (company) generates relative to its total amount of shareholder equity. In other words, it reveals the ratio of the profits of the capital of the banks (Şişman & Doğan, 2016, p. 357).

## 5. Steps For Determining Bank Performance By Using GRA

In the study, the GRA method was used. Banks are found in the alternative part of the decision matrix whereas the financial ratios are in criteria. GRA application steps are explained as follows and the sample data of 2012 are used.

### 5.1. Creation of the Decision Matrix

In the study, the capital structure, asset quality, liquidity and profitability ratios of the five banks, listed in the BIST, have been calculated for the years 2011-2015. The calculated ratios form the decision matrix as in Table 2.

**Table 2: Decision Matrix of Banks**

2012 Banks	Financial Ratios				
	R1	R2	R3	R4	R5
<i>Is Bank</i>	0,1236 29	0,5730 13	0,08012 5	0,01847 4	0,1494 34
<i>Garanti Bank</i>	0,1329 24	0,5732 13	0,10058 3	0,01920 7	0,1444 97
<i>Akbank</i>	0,1374 85	0,5649 69	0,10192 7	0,01838 1	0,1336 97
<i>Yapi Kredi Bank</i>	0,1219 76	0,5991 65	0,08736 2	0,01595 3	0,1307 87
<i>Finansbank</i>	0,1337 1	0,6573 01	0,09611 1	0,02020 3	0,1510 96

### 5.2. Creating the Comparison Matrix

In order to form the comparison matrix, the calculation should be made using the appropriate formula from the formulas 2, 3, 4, and the decision matrix is normalized. Reference criteria are determined according to the values of the financial ratios in the literature. In table 3, comparison matrix of banks is shown for 2012.

**Table 3: Comparison Matrices of Banks**

2012 Banks	Financial Ratios				
	R1	R2	R3	R4	R5
<b>Reference Values</b>	1,0000	1,0000	1,0000	1,0000	1,0000
<i>Is Bank</i>	0,1066	0,0871	0,0000	0,5933	0,9182
<i>Garanti Bank</i>	0,7060	0,0893	0,9384	0,7657	0,6751
<i>Akbank</i>	1,0000	0,0000	1,0000	0,5714	0,1433
<i>Yapi Kredi Bank</i>	0,0000	0,3704	0,3320	0,0000	0,0000
<i>Finansbank</i>	0,7566	1,0000	0,7332	1,0000	1,0000

### 5.3. Creation of the Absolute Value Matrix

After the normalized values table, each financial criterion and reference number is converted to an absolute value matrix by means of formula 5. Five banks' absolute value matrix results are given in Table 4 below.

**Table 4: Absolute Value Matrix of Banks**

2012 Banks	Financial Ratios				
	R1	R2	R3	R4	R5
<i>Is Bank</i>	0,8934	0,9129	1,0000	0,4067	0,0818
<i>Garanti Bank</i>	0,2940	0,9107	0,0616	0,2343	0,3249
<i>Akbank</i>	0,0000	1,0000	0,0000	0,4286	0,8567
<i>Yapi Kredi Bank</i>	1,0000	0,6296	0,6680	1,0000	1,0000
<i>Finansbank</i>	0,2434	0,0000	0,2668	0,0000	0,0000

### 5.4. Calculation of Gray Relational Coefficient

The values that close to the reference value of the values in the matrix are determined. Then, by using the formula 6, the absolute value matrix then converted into a matrix of gray correlation coefficients.

**Table 5: Matrix of Gray Coefficients of Banks**

2012 Banks	Financial Ratios				
	R1	R2	R3	R4	R5
<i>Is Bank</i>	0,3588	0,3539	0,3333	0,5514	0,8594
<i>Garanti Bank</i>	0,6297	0,3544	0,8903	0,6809	0,6061
<i>Akbank</i>	1,0000	0,3333	1,0000	0,5384	0,3685
<i>Yapi Kredi Bank</i>	0,3333	0,4426	0,4281	0,3333	0,3333
<i>Finansbank</i>	0,6726	1,0000	0,6521	1,0000	1,0000

### 5.5. Calculation of Gray Relational Degree

It is assumed that the alternative criteria are of equal weight and multiplying the Gray correlation coefficient, the degree of the banks is calculated. According to the gray relational degree, the performance ranking of the banks is as shown in Table 6.

**Table 6: GRA Results of Banks**

2012 Banks	Financial Ratios					Foi		Rank
	R1	R2	R3	R4	R5			
<i>Is Bank</i>	0,3 588	0,3 539	0,33 33	0,55 14	0,8 594	0,49		4
<i>Garanti Bank</i>	0,6 297	0,3 544	0,89 03	0,68 09	0,6 061	0,63		3
<i>Akbank</i>	1,0 000	0,3 333	1,00 00	0,53 84	0,3 685	0,65		2
<i>Yapi Kredi Bank</i>	0,3 333	0,4 426	0,42 81	0,33 33	0,3 333	0,37		5
<i>Finansbank</i>	0,6 726	1,0 000	0,65 21	1,00 00	1,0 000	0,86		1



## 6. Result and Evaluation

The financial performance of the companies operating in the banking sector was evaluated using the GRA method in the light of financial ratios. In this respect, the financial ratios of Is Bank, Garanti Bank, Akbank, Yapi Kredi Bank and Finansbank have been analyzed.

According to the gray relational coefficients (GRC), the performance rankings of the banks between the years 2011-2015 are given in Table 7. Garanti Bank has the highest performance and gray relation level while Finansbank is the second. Yapi Kredi Bank is in third place as Akbank takes the fourth place. Lastly, Is Bank shows the lowest performance.

**Table 7: Ranking Average Financial Performance of Banks in 2011-2015**

Banks	GRC	Rank
<i>Is Bank</i>	0,451	5
<i>Garanti Bank</i>	0,664	1
<i>Akbank</i>	0,596	4
<i>Yapi Kredi Bank</i>	0,604	3
<i>Finansbank</i>	0,648	2

To make a general evaluation, Yapi Kredi Bank performed poorly until 2013 and has performed well in 2013 and the following years. Finansbank experienced a decline in its performance after 2013, but 2011 and 2012 it took the first place.

Another goal of the research was to determine which ratio is more important for the performance of banks. When Garanti Bank is analyzed, which has the highest average financial ratio-based performance, it is seen that Garanti Bank also has the highest profitability and liquidity ratios compared to other banks.

When Garanti Bank, which has the highest financial-rate-based performance of the banks, is examined, the highest performance ratios among the other banks are profitability and liquidity ratios.

Is Bank, with the lowest performance rankings based on average financial ratio, has the lowest liquidity ratio. Moreover, looking at the financial ratios of Yapi Kredi, which ranks first in terms of performance in 2013, show the highest profitability ratios.

In conclusion, it can be concluded that a bank with high profitability and liquidity ratios may also have a high financial performances.

## 7. References

- Bektaş, H., & Tuna, K. (2013). Borsa İstanbul Gelişen İşletmeler Piyasası'nda İşlem Gören Firmaların Gri İlişkisel Analiz ile Performans Ölçümü. *Çankırı Karatekin Üniversitesi Çankırı Karatekin Üniversitesi Fakültesi Dergisi*, 3(2), 185-198.
- Budak, H. (2011). Veri Zarflama Analizi ve Türk Bankacılık Sektöründe Uygulaması. *Fen Bilimleri Dergisi*, 23(3), 95-110.
- Can Öziç, H., Gündoğmuş, M.E., & Gümüş, U.T (2017). Gri İlişkisel Analiz Yöntemi Kullanılarak BİST 'te Tarım Ve Hayvancılık Sektöründe İşlem Gören İşletmelerin Finansal Performansının Değerlendirilmesi. *International Journal of Academic Value Studies (Javstudies)*. Vol: 3, Issue: 15, 69-75.
- Chang, C. P. (2006). Managing Business Attributes and Performance for Commercial Banks. *The Journal of American Academy of Business*, 9 (1), 104-10.
- Doğan, M. (2015). Comparison Of Financial Performance Of Participation Banks In Turkey. *Journal of Economics, Finance and Accounting*, Volume: 2 Issue: 4.
- Ecer, F. (2013). Türkiye'deki Özel Bankaların Finansal Performanslarının Karşılaştırılması: 2008-2011 Dönemi. *Abant İzzet Baysal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*. 13(2), 171-189.
- Ertuğrul, İ., & Karakaşoğlu, N. (2008). Banka Şube Performanslarının VIKOR Yöntemi İle Değerlendirilmesi, *Endüstri Mühendisliği Dergisi*. Cilt: 20, Sayı: 1, 19-28.

Gülen Alpay, M. & Sakınç, İ.(2017). Türk Bankacılık Sektörünün Yeniden Yapılandırma Öncesi Ve Sonrası Gri İlişkisel Analiz İle Finansal Performans Analizi. *Ömer Halisdemir Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 10(2) , 49-61.

Güneysu, Y., Er, B., & Ar, İ.M.(2015). Türkiye’deki ticari bankaların performanslarının AHS ve GİA yöntemleri ile incelenmesi. *KTU SBE Sosyal. Bilimler Dergisi*. 2015, (9): 71-93.

Meydan, C., Yıldırım, B.F., & Senger, Ö.(2016). BIST’ te İşlem Gören Gıda İşletmelerinin Finansal Performanslarının Gri İlişkisel Analiz Yöntemi Kullanılarak Değerlendirilmesi. *Muhasebe ve Finansman Dergisi*.

Sarı, T., Baynal, K.,& Ergül, Ö.(2016). Supplier Selection with Grey Relational Analysis. *International Journal of Emerging Research in Management & Technology*. Volume-5, Issue-4.

Şişman, B. , & Doğan, M.(2016). Türk Bankalarının Finansal Performanslarının Bulanık AHP ve Bulanık Moora Yöntemleri İle Değerlendirilmesi. *Yönetim ve Ekonomi Dergisi*.23(2) , 353-371.

Uçkun, N., & Girginer, N. (2011). Türkiye’deki Kamu ve Özel Bankaların Performanslarının Gri İlişki Analizi ile İncelenmesi. *Akdeniz İ.İ.B.F. Dergisi*, 21, 46-66.

Wu, W. Y., Hsiao, S. W., & Tsai, C. H. (2008). Forecasting And Evaluating The Tourist Hotel Industry Performance İn Taiwan Based On Grey Theory, *Tourism And Hospitality Research*, 18 (2): 137-152.

Retrieved at December 10, 2017, from <https://www.kap.org.tr/tr/>

Retrieved at December 12, 2017, from <http://www.borsaistanbul.com/>



# Alternative Financing Techniques for Entrepreneurs and Entrepreneurship Centers in Turkey

Serkin Sahin

## 1. Introduction

Entrepreneurs have attracted attention of many researchers in the last two decades. Though entrepreneurship is a commonly used phenomenon in many different cultures and economies, there is no consensus on the definition of entrepreneurship. However, as one of the leading researchers in this field, Drucker (2006, p.21) defines entrepreneur “as the one who starts his own, new and small business”. Though this definition of entrepreneur mainly focus on the individual benefits of entrepreneurial activities, there are many unique benefits of entrepreneurship to an open economy. First of all, entrepreneurship contributes to the development of an economy by creating new wealth. Each entrepreneur in an economy contributes to capital formation which is especially crucial for developing economies such as Turkey. Capital formation not only contributes to the financial development but also to the economic growth in developing economies.

Second, as self-employment mechanism entrepreneurship helps to decrease unemployment. In his manner, entrepreneurship is a tool for government policies in decreasing unemployment. Finally, as Drucker (2006) states, there is close relation between innovation and entrepreneurship. Innovative entrepreneurs boost sustainable economic growth in many countries. At this point of view, these benefits are the main rationales behind supporting entrepreneurship in an economy. The aim of this paper is to investigate the alternative methods and government supports in financing entrepreneurs and entrepreneurship centers in Turkey. The rest of the paper is organized as follow. The Second Section gives information about the alternative approaches of financing entrepreneurship in the world. Government supports for entrepreneurs are explained in Section 3. An alternative method of financing center of entrepreneurship in Turkey is explained in the Section 4 of this study. Finally, concluding remarks and suggestions for future research are presented in Section 5.

## 2. Alternative Financing Techniques for Entrepreneurs

There are a number of traditional financing methods that are widely used by firms such as bank lending, supplier credits and advance payments from customers (Winborg & Landstrom, 2001, p.236-240). However, there are also a number of alternative methods of financing which are commonly used in developed countries. The list of financing alternatives is given in Table 1 below (OECD, 2013, p.23; OECD, 2015, p.17).

**Table 1.** Alternative methods of financing for entrepreneurs

Low Risk/Return Asset Based Finance	Low Risk / Return Alternative Debt	Medium Risk/Return “Hybrid” Instruments	High Risk/Return Equity Instruments
Asset Based Lending	Corporate Bonds	Subordinated Loans/Bonds	Private Equity
Factoring	Securitised Debt	Silent Participations	Venture Capital
Leasing	Covered Bonds	Participating Loans	Business Angels
Purchase Order Finance	Private Placements	Profit Participation Rights	Specialised Platforms for Public Listing of SMEs
Warehouse Receipts	Crowdfunding (debt)	Convertible Bonds	Crowdfunding (equity)

---

**Source:** OECD Reports, 2013, p.23; OECD Reports, 2015, p.17

---

At the one extreme of the spectrum there is low risk/return financing techniques, while at the other extreme of the spectrum it is seen that there is high risk/return financing techniques. These financing alternatives can be summarized as follows.

## 2.1 Asset Based Finance

- **Asset Based Lending:** Asset based lending defined as a form lending that is based on any tangible and intangible assets. The current amount of asset based lending reached to 4 billion Euro in 2006 (Mullen, 2017, p.5).
- **Factoring:** Factoring as a three-party transaction is an alternative financing techniques based on receivables (Hoti, 2014, p.2).
- **Forfaiting:** Forfaiting is a long term alternative financing technique especially for investment goods (Dufey & Giddy, 1981, 37-38).
- **Purchase Order Finance:** Purchase order finance is a tool for creating cash flows based on invoices of future purchases (Navas-Alemán, Pietrobelli & Kamiya, 2012, p.7)
- **Warehouse Receipts:** Warehouse receipt is an alternative financing technique based on commodities. This instrument can both be used as a marketing and financing techniques (Lacroix & Varangis, 1996, p.36)
- **Leasing:** Leasing is an financing technique alternative to borrowing and acquiring the asset. This technique allows the lessee to benefit from the asset while the lessor is the owner of that asset (Lasfer & Levis, 1998, p. 159).

## 2.2 Alternative Debt Finance

- **Corporate Bonds:** Corporate bonds are defined as debt commitments which are issued by private or public institutions/corporations (SEC, 2014, p.1).
- **Securitized Debt:** Securitized debt is a debt instrument based on loans (OECD, 2015, p.49).
- **Debt Securitization and Covered Bonds:** Covered bond is a securitized debt instrument based on dedicated collateral (Packer, Stever, & Upper, 2007, p.43).
- **Private Placements:** Private placement is an alternative debt provided by a limited number of investors and non-bank financial institutions (Basu & Dupont-Barton, 2015, p.103).
- **Crowd Funding (debt):** Crowd funding is an alternative financing technique based on funds from a large number of investors, bank or non-bank financial institutions (OECD, 2015, p.53).

## 2.3 Hybrid Financing

- **Subordinated Bonds:** Subordinated bond is a special kind of debt instrument whose owners have to bear bankruptcy costs after shareholders when the cooperation fails to meet its obligations (Birchler & Hancock, 2003, p.2).
- **Silent Participations:** In silent participation, the investor give full financial support though his/her liability is limited (OECD, 2015, p.65).
- **Participating Loans:** In participation loans are also known as participation mortgages, the lender of the fund participate to the fund transfer and receive a return more than fixed interest rate (Ebrahim, Shackleton, & Wojakowski, 2011, p.3043-3044).
- **Profit Participation Rights:** Profit Participation Rights is some kind of limited equity investment that enables the holder of this instrument receives dividend but no to participate management decisions (Keršys, 2010, p.112).
- **Convertible Bonds:** Convertible Bonds is a combined instrument that give the holder of this instrument to the right of acquire equities of the firms instead of receiving interest gains (Keršys, 2010, p.113).

- **Bonds with Warrants:** In addition to offering fixed payments, Bonds with Warrants also offer the right of acquiring equities of the firm at a specified price which may be lower than the market value of the equity (Long & Sefcik, 1990, p.26-32; OECD, 2015, p.65).

- **Mezzanine Finance:** Mezzanine Finance is also a combined financing technique that stands in the middle of equity and debt financing (Sprink, 2007, p.1).

## 2.4 Equity Finance

- **Private Equity:** Private equity which is distinct from venture capital investment is an alternative financing vehicle made by a number of investors (Gompers, Kaplan, & Mukharlyamov, 2016, p.449).

- **Venture Capital:** Venture Capital is a specified financing technique designed to invest in high technology high growth potential firms (Pierrakis, 2010, p.7). In this manner, venture capital is alternative finance especially for startup firms that face high risk but also offer high return for their investors.

- **Business Angels (Angel Financing):** Angel financing is a fund raising method especially for entrepreneurs and small size firms which in need of capital. However, angel financing is accepted to be more than a financing method since the venture capital investors also give technical and management supports the entrepreneurs to make their business ideas commercial in the market (Ramadani, 2009, p.249).

- **Equity Crowdfunding:** Equity Crowdfunding is a financing alternative especially for seed and startup companies which intend to raise capital from number small investors (Ahlers, Cumming, Gunther, & Schweizer, 2015, p.955).

## 3. Entrepreneurship Centers Financing in Turkey

Currently, entrepreneurs are supported by KOSGEP (Development Organization for Small and Medium Sized Enterprises) via trainings and certification programs in Turkey. However, these kinds of supports are disadvantageous since supporting entrepreneurs after their training cannot be ensured. Moreover, it is seen that contribution of the projects to economic growth can be quite low on several occasions since innovative capacity of the majority of these projects is low. To overcome this problem, it is seen that many local entrepreneurship centers have been established in the last decade in Turkey. It is observed that setting up local entrepreneurship centers is much more efficient than centralization. Though the main goal of these centers is to support local entrepreneurs in that area, there are many other objectives of these centers. Some other possible objectives of these entrepreneurship centers are presented as below;

- Coaching and mentorship supports
- Developing research collaborations with universities, international and public organizations
- Organizing contest to promote entrepreneurship
- Developing cooperation between entrepreneurs and business word
- Providing experience to the entrepreneurs
- Searching for alternative financing techniques for entrepreneurs
- Making research for new entrepreneurs and investment alternatives
- Providing technical support for entrepreneurs to make their project commercial
- Developing business incubators
- Organizing workshops to promote entrepreneurship

### 3.1 Alternative Financing Techniques in Setting up Entrepreneurship Centers

In setting up a sample entrepreneurship center, its financing can be divided into two stages since the financing techniques differ from each other in these stages. Financing the substructure design of the center forms the first stage, whereas, financing the operating costs of the center falls in to the second stage. Hence, in this study, financing alternative are examined keeping this segregation in mind.

### 3.1.1 Capital Budgeting in Setting up Small and Medium Size Entrepreneurship Centers

It is possible to set up a sample entrepreneurship centers in two different sizes namely in small and medium and large scaled. Though the financing options differs regarding the size of the entrepreneurship centers, it is possible to provide the almost the same facilities in different sizes. In order to set up a small and medium sized center, the below infrastructural investments are required.

- Office Space (50 m2 )
- Incubation center
- Computers (10)
- LCD projector
- Internet Connection and entrepreneurship database
- A library for entrepreneurs

The required office space can be provided by chambers of trade and industries. This office space can also be used to set up the incubation center. Internet connection, data base for entrepreneurs, computers and LCD projectors are also required. The costs and alternative financing options to be used are given in Table 2 below.

<b>Table 2. A Sample capital budgeting for small and medium size enterpreneurship centers</b>						
<b>Item no:</b>	<b>Item</b>	<b>Quantity</b>	<b>Unit price</b>	<b>Total (tl)</b>	<b>Financing alternatives</b>	
1	Office space	50 m2	-	-	Chambers of trade and industries	1007
2	Computers	10	2,750	27,500	Tübitak support	1007
3	Lcd projector	1	2,000	2,000	Tübitak support	1007
4	Printer	1	500	500	Tübitak support	1601
5	Books and periodicals	100	20(avg.)	2,000	Tübitak support	1601
<b>Furnishing expenditures</b>						
1	Livarary	2	400	800	Chambers of trade and industries and development agencies “direct financial supports)”	
2	Office tables	1	2,000	2,000	Chambers of trade and industries and development agencies “direct financial supports)”	
2	Chairs	10	100	1.000	Chambers of trade and industries and development agencies “direct financial supports)”	
4	Seats and sofas	2	1,500	3,000	Chambers of trade and industries and development agencies “direct financial supports)”	

<b>Total</b>	
<b>Cost</b>	<b>37,000</b>

Though the above initial investment costs are essential to start an entrepreneurship center. Financing alternatives are in need for operating costs. The financing alternatives and supports for small and medium sized entrepreneurship center are given in Table 3 below.

**Table 3.** A Sample operating costs for small and medium size entrepreneurship centers

<b>Item No:</b>	<b>Related Cost</b>	<b>Frequency</b>	<b>Unit</b>	<b>Unit Cost (TL)</b>	<b>Total Monthly Cost (TL)</b>	<b>Financing Alternatives</b>
1	Training costs	Monthly	1	4,000	4,000	Development Agencies and KOSGEP Entrepreneurship Support Program
2	Staff costs	Monthly	1	2,500	2,500	TÜBİTAK 1601 Support
3	Electricity-water-Energy costs	Monthly	1	200	200	Development Agencies
4	Carriage and transportation costs	Monthly	1	100	100	Development Agencies
5	Social activity costs	Monthly	1	500	500	Development Agencies
<b>Montly Cost</b>					<b>7,300</b>	
<b>Annual Cost</b>					<b>87,600</b>	

### 3.1.2 Capital Budgeting in Setting up Large-Scale Entrepreneurship Centers

The required investments in setting up a sample large-scaled entrepreneurship centers are given as below. The costs and financing alternative to be used are given in Table 4 below.

- 500 m2 confined space, 1,000 m2 open space
- Technology development center
- Software development center
- Incubation center
- Research center
- Office space for mentors
- Computers (30)
- LCD Projector
- Internet Connection and entrepreneurship database
- A library for entrepreneurs



**Table 4.** A Sample capital budgeting for large-scale entrepreneurship centers

<b>Item No:</b>	<b>Item</b>	<b>Quantit y</b>	<b>Unit Price</b>	<b>Total (TL)</b>	<b>Financin g Alternatives</b>
1	Land	500m <sup>2</sup> confined, 1,000m <sup>2</sup> open space	-	-	Local Municipality
2	Building Construction Costs	500m <sup>2</sup> confined space	Per square meter (avg.. 4,000 TL)	2,000,000	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
2	Technology Development Center	Included in confined space	Furnishin g Expenditures	30,000	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
3	Software Development Center	Included in confined space	Furnishin g Expenditures	30,000	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
4	Incubation Center	Included in confined space	Furnishin g Expenditures	30,000	United Nations Development Program (UNDP) "Project

## Alternative Financing Techniques for Entrepreneurs and Entrepreneurship Centers in Turkey

						Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project
5	Research Center	Included in confined space	Furnishin g Expenditures	20,000		Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project
6	Mentorship	Included in confined space	Furnishin g Expenditures	20,000		Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project
7	Computers	30	2,750	82,500		Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project
8	LCD Projector	6	2,000	12,000		Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project

						Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds United Nations Development Program (UNDP) “Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
9	Printer	6	500	3,000		
10	Equipment s	-	-	30,000		
10	Books and Periodicals	500	20 (avg.)	10,000		
<b><u>Total</u></b>				<b>2,267,00</b>		
<b><u>Cost</u></b>				<b>0</b>		

Similar to financing small and medium size entrepreneurship centers, financing alternatives are also required to finance operating costs of large scale entrepreneurship centers. The financing alternatives and supports for large scale entrepreneurship centers are given in Table 5 below.

**Table 5.** A Sample operating costs for large scale entrepreneurship centers

<b>Item No:</b>	<b>Related Cost</b>	<b>Frequency</b>	<b>Unit</b>	<b>Unit Cost (TL)</b>	<b>Total Monthly Cost (TL)</b>	<b>Financing Alternatives</b>
1	Training costs	Monthly	3	5,000	15,000	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
2	Staff costs	Monthly	6	2,500	15,000	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
3	Electricity-water-Energy costs	Monthly	1	500	500	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
4	Carriage and transportation costs	Monthly	1	500	500	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
5	Social activity costs	Monthly	1	1,500	1,500	United Nations Development Program (UNDP) "Project Supprt, IFC, Republic of Turkey Ministry of Development, EU Funds
<b>Montly Cost</b>					<b>33,000</b>	
<b>Annual Cost</b>					<b>396,000</b>	

#### 4. Discussion

Though there are many alternative financing techniques for entrepreneurs, it is seen that the use of these financing alternatives is limited in Turkey. Though majority of these financing alternatives can also be used in Turkey, it is observed that majority of the entrepreneurs is not aware of these alternative techniques. Hence, most of the entrepreneurs prefer to use traditional financing techniques such as debt and/or equity financing.

However, traditional techniques increase the burden and complexity of entrepreneurship. To overcome this issue, many government supports in promoting the entrepreneurship in Turkey has

come up in recent years, which reduce the risk that the entrepreneurs face in most cases. Moreover, it is thought that entrepreneurship centers help to promote entrepreneurs more efficiently rather than existing practice. Though, the financing of entrepreneurship centers can be quite costly especially when set up in large scale, there are many government supports to be used in financing these centers. In this study, in addition to financing alternatives, government supports which can be used in financing these techniques are also investigated. Moreover, a sample budgeting for different size of the entrepreneurship centers is also provided. It is thought that this sample may provide a basic idea of setting up entrepreneurship centers in different locations. It is also thought that as the number entrepreneurship centers increases, the efficiency of the entrepreneurial activities increase.

## 5. References

- Ahlers, G.K., Cumming, D., Gunther, C., & Schweizer, D. (2015). Signaling in equity crowdfunding. *Entrepreneurship Theory and Practice*, 39(4), 955–980.
- Basu, R., & Dupont-Barton, M. (2015). The rise of private placements as an alternative source of funding: a time for innovation and growth. *Butterworths Journal of International Banking and Financial Law*, February 2015, 103–106.
- Birchler, U. W., & Hancock, D. (2003). What does the yield on subordinated bank debt measure?. *Federal Reserve Publication*, Retrieved from <https://www.federalreserve.gov/pubs/feds/2004/200419/200419pap.pdf>
- Drucker, P.F. (2006). Innovation and entrepreneurship. Retrieved from [http://www.untagsmd.ac.id/files/Perpustakaan\\_Digital\\_1/ENTREPRENEURSHIP%20Innovation%20and%20entrepreneurship.PDF](http://www.untagsmd.ac.id/files/Perpustakaan_Digital_1/ENTREPRENEURSHIP%20Innovation%20and%20entrepreneurship.PDF)
- Dufey, G., & Giddy, I.H. (1981). Innovation in the international financial markets. *Journal of International Business Studies*, Tenth Anniversary Special Issue 12( 2), 33–51.
- Ebrahim, M.S., Shackleton, M.B., & Wojakowski, R.M. (2011). Participating mortgages and the efficiency of financial intermediation. *Journal of Banking & Finance*, 35, 3042–3054.
- Gompers, P., Kaplan, S. N., & Mukharlyamov, V. (2016). What do private equity firms say they do?. *Journal of Financial Economics*, 121(3), 449–476.
- Hoti, U. (2014). Factoring: A Financial Instrument. *Interdisciplinary Journal of Research and Development*, 1(2), 7–10.
- Keršys, M. (2010). Business financing models and instruments. *Leonardo da Vinci programme Project, Development and Approbation of Applied Courses Based on the Transfer of Teaching Innovations in Finance and Management for Further Education of Entrepreneurs and Specialists in Latvia, Lithuania and Bulgaria*. Retrieved from [http://www.bcci.bg/projects/latvia/pdf/6\\_BFMI\\_Final.doc\\_M.Kersys.pdf](http://www.bcci.bg/projects/latvia/pdf/6_BFMI_Final.doc_M.Kersys.pdf)
- Lacroix, R., & Varangis, P. (1996). Using warehouse receipts in developing and transition economies, *Finance & Development*, September 1996, 36–39.
- Lasfer, M. A., & Levis, M. (1998). The determinants of the leasing decision of small and large companies. *European Financial Management*, 4(2), 159–184.
- Long, M. S., & Sefcik, S. E. (1990). Participation financing: a comparison of the characteristics of convertible debt and straight bonds issued in conjunction with warrants. *Financial Management*, 19(3), 23–34.
- Mullen, M. (2017). Growth through asset based finance, *ICAEW Press Best-Practice Guideline 65*, Retrieved from [https://www.abfa.org.uk/about/Guideline\\_65\\_Growth\\_through\\_ABF.pdf](https://www.abfa.org.uk/about/Guideline_65_Growth_through_ABF.pdf)
- Navas-Alemán, L., Pietrobelli, C., & Kamiya, M. (2012). Inter-firm linkages and finance in value chains. *Inter-American Development Bank (IDB) Working Paper Series*, No. IDB-WP-349. Retrieved from <http://www20.iadb.org/intal/catalogo/PE/2013/11193.pdf>
- OECD (2013). Alternative Financing Instruments for SMEs and entrepreneurs: The case of Mezzanine Finance, *OECD, Paris, CFE/SME(2012)9/FINAL*. Retrieved from [http://www.oecd-ilibrary.org/industry-and-services/financing-smes-and-entrepreneurs-2014/alternative-financing-instruments-the-case-of-mezzanine-finance\\_fin\\_sme\\_ent-2014-6-en](http://www.oecd-ilibrary.org/industry-and-services/financing-smes-and-entrepreneurs-2014/alternative-financing-instruments-the-case-of-mezzanine-finance_fin_sme_ent-2014-6-en)

OECD (2015). New Approaches to SME and Entrepreneurship Financing: Broadening the Range of Instruments. *Working Paper*. Retrieved from

<https://www.oecd.org/cfe/smes/New-Approaches-SME-full-report.pdf>

Packer, F., Stever, R., & Upper, C. (2007). The covered bond market. *BIS Quarterly Review*, September 2007, 43–55.

Pierrakis, Y. (2010). Venture capital now and after the dotcom crash. *NESTA Research Report*: Retrieved from

[https://www.researchgate.net/publication/299347058\\_Venture\\_capital\\_now\\_and\\_after\\_the\\_dotcom\\_crash](https://www.researchgate.net/publication/299347058_Venture_capital_now_and_after_the_dotcom_crash)

Ramadani, V. (2009). Business angels: who they really are. *Strategic Change*, 18, 249–258.

SEC (2014). What Are Corporate Bonds?. *SEC Pub. No. 149 (6/13)*, Retrieved from

[https://www.sec.gov/files/ib\\_corporatebonds.pdf](https://www.sec.gov/files/ib_corporatebonds.pdf)

Sprink, T.H. (2007). Understanding mezzanine financing: bridging the funding gap. *Title Issues*, 19(1), 1–5.

Winborg, J., & Landström, H. (2001). Financial bootstrapping in small businesses: Examining small business managers' resource acquisition behaviors. *Journal of Business Venturing*, 16(3), 235–254.



# Effect Of Financial Statement Rates On Active Profitability: A Working On Cement Firms In Ise

Umut Tolga Gumus, Cagri Koroglu, Ahmet Fatih Kilic, Mustafa Sahin

## 1. Introduction

In broad terms, there are 28 companies in Turkey that operate in Turkish cement sector. Within these companies, there are 70 integrated plants, 52 of which are integrated plants while 18 are grinding plants. The sector provides employment to roughly 15.000 people in total. In Turkey, a close analysis of the total cement manufacture figures reveals that more than half of the final product is manufactured by eight companies and this implies an oligopoly market for Turkish cement industry. (Çevik, 2016: 8)

When the cost structure of the cement manufacture is analyzed, the most striking item is the energy costs with the largest share. Energy costs comprise 61% of the total cost and 38% of this is for fuel and 21% is the electricity. Other costs that are relevant in the sector are 10% raw material cost, 9% labor cost and 7% depreciation cost (Çevik, 2016: 14). In cement sector, high cost of transportation is a pivotal factor in regional distribution of cement companies. Exports in the industry are shaped by domestic demand.

In 2017, the cement manufacture in Turkey exhibited a 6.8% rise compared to 2016. About 9.9% of the cement manufactured was exported. In 2017, 8.1% rise in domestic sales, and 6.9% increase in exports were reported. Sales that started out in May exhibited a fall in June, but picked up again in July and the following months. In December, mild weather conditions produced a significant rise of 57% monthly, and this led to a rise higher than the expectations for the year.

Cement industry, due to its nature, is a sector that requires high investment costs, facilities that are positioned closely and equity capital all of which leads to high levels of competition. This consequently impedes new competitors from entering the market.

Turkey is the leading country in Europe in ready-mixed concrete manufacturing. Ready-mixed concrete sector has a high potential for growth. Even though ready-mixed concrete is mostly manufactured by large companies that also manufacture cement, small companies, too, play an influential role in the sector by purchasing cement from these larger firms. (Çevik, 2016, 4). In recent years, the developments in ready-mixed concrete have made significant contributions to the cement industry and supported the cement sector by creating new manufacturing plants and investment areas.

Cement companies are businesses with high tangible assets and asset items in general due to the size of the plants and also for transportation operations. How effective and efficient a company uses its assets is measured by return on assets (ROA). This ratio is highly significant for companies. Our goal in this study is to identify the variables that affect return on assets in cement industry, and try to provide recommendations for increasing profitability, as well as ensuring sustainable profitability.

## 2. Data Set of the Study

The general background information about these companies is given in the table below.



Table 1. Company Information

COMPANY'S NAME	SECTOR	SCOPE	DATE OF ESTABLISHMENT
AFYON ÇİMENTO SANAYİ T.A.Ş.	Stone, soil	Manufacturing and selling cement; participating in all sub-industry establishments relevant to its scope	01.08.1955
AKÇANSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Stone, soil	Manufacturing and selling clinker, cement and ready-mixed concrete	17.09.1974
ASLAN ÇİMENTO A.Ş.	Stone, soil	Manufacturing and selling clinker and cement	19.11.1976
BOLU ÇİMENTO SANAYİİ A.Ş.	Stone, soil	Cement, Ready-Mixed Concrete	08.05.1968
ÇİMSA ÇİMENTO SANAYİ VE TİCARET A.Ş.	Stone, soil	Manufacturing and selling cement, clinker and ready-mixed concrete	21.12.1972
KONYA ÇİMENTO SANAYİİ A.Ş.	Stone, soil	Manufacturing and selling various types of cement, ready-mixed concrete and aggregate	12.12.1954
MARDİN ÇİMENTO SANAYİİ VE TİCARET A.Ş.	Stone, soil	Manufacturing and selling clinker, cement and ready-mixed concrete	02.06.1969
NUH ÇİMENTO SANAYİ A.Ş.	Stone, soil	Manufacturing and selling cement, electricity and white brick	08.04.1966

The data set used in the study is composed of data for years 2013-2017 from 8 companies traded in Istanbul Stock Exchange. In this study, financial reports of eight cement companies were accessed, and their quarterly financial reports were prepared for years 2013 to 2017; the data set is composed of a total of 160 observations, 20 per company.

### 3. Methods and Variables of the Study

In this study, Return on Assets is taken as dependent variable. Leverage Ratio, Asset Turnover, Tangible Assets Turnover Rate, Operating Profit/Net Sales Ratio are accepted as independent variables.

**Return on Assets:** obtained by dividing the net profit of a business to its net assets. Return on assets is an indication of how much revenue a company generates from its total assets, and how efficient these are used.

$$\text{Return on Assets} = \frac{\text{Net Profit}}{\text{Total Assets}}$$

**Tangible Assets Turnover Rate:** This ratio is obtained by proportioning the net sales of a company to its tangible assets. Tangible assets turnover rate indicates how efficient a business uses its economic assets of tangible form (Aydoğdu, 2010: 81).

$$\text{Tangible Assets Turnover Rate} = \frac{\text{Net Sales}}{\text{Tangible Assets}}$$

**Asset Turnover:** obtained by proportioning the net sales of a business to its total assets. This ratio shows how many times a company turns over its total assets a year, and how many times its sales surpassed its assets (Okka, 2011:9).

$$\text{Asset Turnover} = \frac{\text{Net Sales}}{\text{Total Assets}}$$

**Leverage Ratio:** obtained by proportioning the total loan capital of a business to its active (passive) totals. The leverage ratio indicates how much of a company's assets are financed by loan capital. This is a primary component in analysis of capital structure (Özgel, 2007:65).

$$\text{Total Leverage Ratio} = \frac{\text{Total Loan Capital}}{\text{Passive (Active) Totals}}$$

**Operating Profit/Net Sales:** the ratio that measures the ability of a business to manage its operating expenses.

### 3.1 Aim of the Study

The aim of this study is to analyze the effect of ratio of our dependent variable Return on Assets to the independent variables Leverage Ratio, Asset Turnover, Tangible Assets Turnover Rate, and Operating Profit/Net Sales Ratio. The study also aims to determine whether the independent variables have positive or negative effect on return on assets and whether this effect is significant.

### 3.2. Model of Study

In the study, the effect of the variance between the variables from 2013 to 2017 for quarterly terms on return on assets was analyzed. The fact that the data used contained both time series and cross section necessitated the use of panel data as the analysis method. In panel data analysis, cross sectional data are assessed as a whole and the regression equation is predicted. (Karaca, 2011: 105)

When panel data analysis is compared to other regression models, i.e. time series and cross section series, its advantages are obvious. The analysis outcomes of cross section data only reveal the variations between the units while panel data analysis shows the variances between both the units and the times. Another advantage of the panel data analysis is that it allows establishing and analyzing more complex models than time series and cross section series. Panel data analysis provides more realistic, more precise results and allows for comprehensive predictions (Çalışkan, 2009:124). Another significant advantage of the panel data analysis is its ability to measure factors that cannot be expressed numerically, that are unobservable and cannot be clearly measured (Hsiao, 2003: 7).

The regression model used in the analysis is as follows:

$$ROAY_i = \beta_0 + \beta_2 \text{TATR} + \beta_4 \text{AT} + \beta_3 \text{OPNSR} + \beta_1 \text{LR} + U$$

ROA : Return on Assets

LR : Leverage Ratio

TATR : Tangible Assets Turnover Rate

OPNSR : Operating Profit to Net Sales Ratio

AT : Asset Turnover

U : Error Term

#### 4. Findings and Results of the Study and Statistical Analyses

Table 2. Descriptive Statistics

	<i>ROA</i>	<i>ASSET TURNOVER</i>	<i>TATR</i>	<i>OP. PROFIT/ NET SALES</i>	<i>LEVERAGE</i>
Average	0.0748	0.4080	0.8143	0.1921	0.3384
Standard Deviation	0.0519	0.2353	0.5617	0.1043	0.1296
Sample Variance	0.0027	0.0554	0.3155	0.0109	0.0168
Maximum	-0.0097	0.0114	0.0133	-0.4745	0.1340
Minimum	0.2099	1.0856	3.1512	0.3596	0.7581
Total	11.9619	65.2782	130.2850	30.7392	54.1465
<b>Number</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>	<b>160</b>

When the descriptive statistics in the table are examined, return on assets is positive with 0.0748. Based on this value, we can conclude a profit for the eight cement companies in the study between 2013 and 2017. Average of asset turnover is observed as 0.4080. This low average of the ratio is an indicator of inefficient use of the assets by the companies. This might be because the companies operate in cement sector and are manufacturing companies. The average tangible assets turnover rate was calculated as 0.8143. With this average, we can deduce that the companies are using their assets at 80% efficiency. The average of operating profits/net sales ratio was 0.1921 and this shows that the companies are not effectively managing their operating expenses. Leverage ratio on the other hand was computed as 0.3384. Based on this average, we can conclude that the companies are using loan capitals around 34% and mostly finance themselves with equity capital. In general, the averages of the ratios show that the highest average is for tangible assets turnover rate.

Table 3. Correlation Matrix

	<i>ROA</i>	<i>ASSET TURNOVER</i>	<i>TATR</i>	<i>OP. PROFIT/ NET SALES</i>	<i>LEVERAG E</i>
<i>ROA</i>	1				
<i>ASSET TURNOVER</i>	0.7742	1			
<i>TATR</i>	0.6378	0.8059	1		
<i>OP. PROFIT/ NET SALES</i>	0.5986	0.2997	0.2609	1	
<i>LEVERAGE</i>	0.3701	-0.4680	-0.3343	-0.1111	1

The correlation of the matrix between the variables in the study is given in the table above. When the correlation between return on assets and other variables is analyzed, we can conclude that there is a positive correlation between asset turnover, tangible asset turnover rate, operating profit/net sales and return on assets. In this picture, an increase in these rates will also increase return on assets, and conversely a fall will decrease the same. Asset turnover with 0.7742 has the highest positive correlation

## Effect Of Financial Statement Rates On Active Profitability

and is the ratio that could contribute most to the return on assets in case of an increase. Furthermore, a negative correlation can be observed between return on assets and leverage ratio. This indicates that as the liabilities of the cement companies in the study increase, their return on assets will decrease.

Table 4. Results of Regression Model  
Number of Observations: 160  
Dependent Variable: Return on Assets

	<i>Coefficient</i>	<i>Measurement Error</i>	<i>t-ratio</i>	<i>p-value</i>	
const	-1.21130	0.144348	-8.392	<0.0001	**
_maddv	0.148662	0.0735796	2.020	0.0451	*
_at	0.640108	0.0788238	8.121	<0.0001	**
_opns	0.726938	0.0419397	17.33	<0.0001	**
_lr	-0.316118	0.0723093	-4.372	<0.0001	**
Statistics based on weighted data:					
Residual sum of squares	148.8561	Regression		0.992876	
R-square	0.910496	Adjusted R-square		0.908125	
F(4, 151)	384.0166	P-value (F)		5.10e-78	
Log-likelihood	-217.698	Akaike criterion		445.3962	
Schwarz criterion	460.6454	Hannan-Quinn		451.5898	
		Durbin-Watson stat		2.095062	
Statistics based on native data:					
Dependent variable ave.	-2.88114	Dependent variable		0.928669	
Residual sum of squares	24.88442	Regression		0.405953	

(Note: \*p<0.01, \*\*p<0.05, \*\*\*at p<0.10 significance level)

When the analysis results are assessed, R-squared (R<sup>2</sup>) value that indicates the effect of all of independent variables on dependent variable is observed as 0.910496. The certainty coefficient assumes a value between 0 and 1 and defines how much of the change in independent variables can be explained with dependent variable. In other words, it expresses the influence of independent variables over dependent variable. If R-squared is close to 0, then this means the reason of the change in the dependent variables is factors other than the dependent variables. In our model, since this value is close to 1, it could be concluded that the explanatory power of regression model is sufficient.

In the model, conversion was performed to eliminate the problem of auto correlation. A statistical outcome of 2.095062 for Durbin-Watson that tests the presence of auto correlation shows that there is none in our model.

When the probability values of the model is examined, the relation between return on assets and independent variables is insignificant for tangible assets turnover, and significant for leverage ratio, operating profit/net sales ratio and asset turnover.

## 5. Discussion

In this study, 2013 – 2017 financial reports of eight cement companies traded in Istanbul Stock Exchange were examined and the effect of leverage ratio, tangible assets turnover, and net sales/total assets turnover on return on assets was analyzed with regression model. One of the most striking outcomes of the study was the negative relation between the leverage ratio and return on assets. This conclusion is evident in both correlation matrix and the regression model. This is also in line with the previous studies conducted on the subject. (Karadeniz and İskenderoğlu (2011), Albayrak and Akbulut (2008), Şamiloğlu and Demirgüneş (2008)). Within the context of this conclusion, we can deduce that as the debt ratio of the cement businesses increase, their return on assets will decrease. If the loan capitals were assessed in two separate groups as short term loan capitals and long term loan capitals, their effect on return on assets might have been different.

In the results of the study, the effect of asset turnover on return on assets is in positive direction. In other words, as the asset turnover rate of the companies increases, so will their return on assets. When the correlation matrix is reviewed, asset turnover with 0.7742 has the highest correlation among the variables. This positive relation of asset turnover can also be confirmed at a significant level with regression model.

The results of the study establish that the effect of Operating Profit/Net Sales on return on assets is positive and significant. A rise in this ratio will increase the return on assets for eight cement companies analyzed in this study. Furthermore, the effect of Tangible Asset Turnover Rate on return on assets is also computed as positive and significant. A rise in Tangible Asset Turnover Rate will increase return on assets.

In conclusion, businesses seeking to increase their profitability should maintain their Asset Turnover, Tangible Assets Turnover Rate, and Operating Profit/Net Sales Ratio at high levels while keeping their Leverage Ratios at optimum.

## 6. References

- Akgüç, Ö. (1995). Mali Tablolar Analizi. İstanbul: Avcıol BasımYayın.
- Akgüç, Ö. (1998). Finansal Yönetim. İstanbul: Avcıol Basım-Yayın.
- AYDOĞDU, Serçin (2010), Altı Sigmayı Kullanan Bir İşletmenin Mali Tablolar Analizi, Marmara Üniversitesi, Sosyal Bilimler Enstitüsü Yayınlanmamış Yüksek Lisans Tezi, İstanbul
- Çakır, M. D. ve Küçük Kaplan, İ. (2012). İşletme sermayesi unsurlarının firma Değeri ve kârlılığı üzerindeki etkisinin İMKB’de işlem gören üretim firmalarında 2000-2009 dönemi için analizi, Muhasebe ve Finansman Dergisi, (53), 69-86.
- Çalışkan, Zafer (2009) Oecd Ülkelerinde Sağlık Harcamaları: Panel Veri Analizi, Erciyes Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi
- Çevik B. (2016), Çimento Sektörü, Türkiye İş Bankası, İktisadi Araştırmalar Bölümü.
- HSIAO, Cheng; (2003), Analysis of Panel Data, 2nd edition, Cambridge University Press, Cambridge, 384s.
- Karaca, S. S. ve Başcı E.S. (2011). Hisse Senedi Performansını Etkileyen Rasyolar ve İMKB 30 İndeksinde 2001-2009 Dönemi Panel veri Analizi. Süleyman Demirel Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi, 3, 338–347.
- OKKA, Osman; (2011), İşletme Finansmanı, Nobel Yayın Dağıtım, Ankara, 45-53s.
- ÖZGEL, Fulya (2007), İlaç Sektöründe Mali Tablolar Analiz ve Bir Uygulama, Marmara Üniversitesi, Sosyal Bilimler Enstitüsü Yayınlanmamış Yüksek Lisans Tezi, İstanbul.

# Impact Of Globalization On International Accounting Standards

Haci Arif Tuncez, Aytac Demiray, Alper Tunga Alkan

## 1. Introduction

Today, as result of rapid expansion of the economies by globalization process, the economic relations increased and country economies have become dependent on each other. Hence, efforts of multinational corporations to expand their activities worldwide have increased. These developments that have taken place at international level brought along some problems or differences in terms of financial reporting and accounting practices (Çankaya, 2007: 128).

The fact that countries have their own legal systems, legal and tax regulations, social, economic, religious and cultural circles caused differences also in their accounting systems. As result of this, different countries created different accounting systems (Wiecek & Young, 2010: 1). Multinational corporates increased rapidly in the course of time and increased their market shares in different countries. These companies, which are engaged in international trade, have started facing difficulties in accounting for the differences in the accounting systems of the countries (Epstein & Mirza, 1999: 8). This situation impaired the transparency of the financial statements and made their comparability difficult (Demirci & Önal, 2016: 589-590).

The differences in inter-country accounting practices make it difficult to compare financial information, create barriers for fund-collection in capital markets, and cause difficulties in trading and merging of international companies, and cause not to obtain accurate, reliable and also comparable information due to the different reporting applications. These problems inevitably necessitate the use of a common accounting language.

## 2. Formation And Development Of The International Accounting Standards

The developments happening in the world in the field of economy, tie the country economies to each other, direct them to be at the denominator of the common accounting principles in preparation and reporting of the tables and preparation of the financial statements based on the same criteria. Against this requirement, the studies were started first on country basis, and USA, England, France and Germany have taken the lead in these studies. The obligation of information to be shareable and comparable at international field, gets the standardization studies to an international level.

County-specific accounting regulations caused significant difficulties in being understandable in a global context and in penetration of multi national companies to the country economy. The different legislation of countries is both complex and seems to have a lot of application differences compared to other countries. While evaluating their capital, foreign investors want to invest in countries where they will not face problems in terms of taxation and accounting. The necessity and importance of establishing a series of international accounting standards that are comparable, transparent and understandable reveals itself expressly in this situation (Kocamaz, 2012: 106).

Accounting principles have importance for the enterprises to ensure the creation of the prudential realistic plans with accurate analysis of the financial performances of the companies, to help determining accurate aim and objectives, providing company management with ease to make analysis on the basis of period, to help ensuring a healthy interpretation of comparisons based on the financial performance of other companies in the sector, to facilitate the supervision of the companies, to help making the right decisions about things that can be called vital for the company (Akgül & Akay, 2003: 35).

International Accounting Standards Committee-IASC is one of the leading organizations working for aligning financial reporting internationally. The Committee has been founded with an agreement concluded by the professional accounting organizations in Canada, France, Germany, Japan, Mexico, Netherlands, UK, Ireland and America in 1973 in the 10th International Accountants Congress (Başpınar, 2005: 53). The IASC was involved in the establishment of international accounting standards

from its establishment in 1973 until March 2001. On 1 April 2001, the International Accounting Standards Committee (IASC) has taken over the responsibility for developing accounting standards from its previous department of IASC.

The purpose of the IASB is to establish a single set of high quality, understandable and enforceable accounting standards that will be valid in all countries. For this purpose, the Board helps ensuring national standards to be closer to the international standards, by entering into a partnership with committees that will create a national accounting standard. As of January 1, 2005, more than 90 countries around the world have either mandated the use of IFRSs or allowed them to be used (Akdoğan, 2007, Uzay, 2007: 4).

The creation of accounting standards that we can define as a set of principles and rules to be observed in order to reflect the operating results needed by users of financial statements in an accurate, comparable, consistent, reliable, balanced and understandable way and compliance with the created accounting standards have ensured the reliability of the financial information to be increased (Bostancı, 2002: 74).

### **3. Impact Of Globalization On International Accounting Standards**

Globalization has been described as an increase in the economic activities, which cross national and regional borders that are generally determined politically and it is stated that capital has emerged as result of capital's crossing border through investment and trade and people's crossing borders through migration (Masca, 1998: 357). The removal of country borders as result of globalization, emerging global markets, has resulting in high quality products to be delivered rapidly to the customer with lower cost for high performance and customer satisfaction. Today, rapid change and progress in transportation and communication technologies has caused national borders to be removed (Kayabaşı, & Demireli & Yıldırım, 2007: 27).

Competition between enterprises in the globalization process and changes in the preferences of the communities, the increase in the contribution of countries to the world economy, the development of international capital markets, the desire of the world economy to benefit from the alternatives of the restructuring process caused enterprises to carry out activities in an international level (Kargı, 2016: 274).

The financial system, which is one of the leading fields affected from the globalization process; is a whole comprised as result of certain people and institutions, markets, tools and organizations come together in order to perform various functions altogether. The function of transferring savings to investments is realized through the financial system. This system where money and various financial tools that serve money functions at different levels are produced and put in the progress of the economy, is a determinant of the micro- and macro performance of the economy (Afşar, 2007: 189).

Countries have tried to standardize accounting with the aim of eliminating differences in accounting practices. However, due to these differences, a unity could not be ensured in the standards determined on the basis of countries. Differences in accounting standards in the country make it difficult to compare the obtained financial information, obstruct the process of collecting funds in capital markets and cause difficulties in buying and selling and mergers of international companies. The elimination of all these negativities sets forth the necessity that the different accounting standards applied in different countries should be in alignment with each other, and the same accounting standards should be applied in all countries (Korkmaz & Temel & Birkan, 2007: 97).

The changing world order and globalization caused a restructuring requirement at an international level also in the accounting and financial reporting, as in all fields. Moreover, in the face of the level reached by international economic activities, only quality standards and ensuring a uniform application within the country were not sufficient at all; and speaking the same language with the whole world in financial reporting has become a separate requirement to adopt the appropriate standards for Generally Accepted Accounting Principles (Bayazıtlı, & Çelik, & Üstündağ, 2006: 59). The benefits of a strong global financial reporting can be listed as comparable financial reporting for investors, promoting international investment, low cost capital, efficient resource allocation, creation of a high-rate economic growth (Alkan & Doğan, 2012: 88).

#### 4. Conclusion

Political and economic changes in the world have allowed businesses to find new investment areas across national boundaries. The Companies that started to operate in the international field by means of globalization have encountered differences in the accounting practices, for reasons such as economic systems of the countries in which they operate, cultural factors, partnership understanding of businesses, structural regimes of the state, organization of accounting profession. A common language should be used for accounting so that financial statements prepared to provide credible information to information users are more transparent, understandable, comparable and reliable. However, countries' own accounting policies have made it impossible to implement a common accounting policy.

Accounting standards have been started to be established in order to provide unity in accounting applications both in national and international areas. Many international organizations have been involved in these activities. The common aim of these organizations is establishing standards for global accounting and financial reporting in the world.

In order to ensure harmonization and standardization in financial statements and accounting information, the necessity of establishing national accounting application standards in every country has arisen. In recent years, in line with the trends of globalization, elimination of obstacles in the international trade, increasing number of the companies at international level, the developments happening in international financial markets, passing to the free market economy and emerging "New Economy" phenomenon necessitated the removal of the differences in the accounting applications between the counties and accounting information to be comparable. In this context, international accounting standards have gained great importance in accounting applications. The studies in this context, have greatly increased the importance and function of the accounting.

By means of globalization, also the international role and importance of accounting standards have increased. Today, initiatives are maintained by various institutions and organizations in order to ensure international alignment in accounting standards and to create common accounting standards, and significant resources are reserved for this field. The most important factor in the international alignment is accounting standards and their creation.

#### 5. References

- Afşar A. (2007), "*Finansal Gelişme ve Ekonomik Büyüme Arasındaki İlişki*", Muhasebe ve Finansman Dergisi, Sayı:36, 188-198.
- Akdoğan, N. (2007), "*Türkiye Muhasebe Standartlarına Toplu Bakış, Muhasebe Uygulamalarına Etkisi*", MÖDAV & Niğde Üniversitesi İ.İ.B.F. Türkiye Muhasebe Standartlarındaki Gelişmeler Paneli, 11 Mayıs 2007, Niğde.
- Akgül, B. A. & Akay, H. (2003), *Uluslararası Muhasebe Standartları ve Türkiye’de Uygulama Etkinliğine İlişkin Bir Araştırma*. Türkmen Kitapevi, 2. Baskı, İstanbul.
- Alkan, G. İ. & Doğan, O. (2012), "*Uluslararası Finansal Raporlama Standartları’nın Finansal Rasyolara Kısa Ve Uzun Dönemli Etkileri: İMKB’de Bir Araştırma*" Muhasebe ve Finansman Dergisi, 87-100.
- Başpınar, A. (2005), "*Türkiye’de ve Dünya’da Muhasebe Standartlarının Oluşumuna Genel Bir Bakış*" Maliye Dergisi, No.140, 42-57.
- Bayazıtlı, E. & Çelik, O. & Üstündağ, S. (2006), "*Meslek Mensupları İçin Türkiye Muhasebe Standartlarına Genel Bakış*", Ankara, TÜRMOB Temel Eğitim ve Staj Merkezi Yayın No: 67.
- Bostancı, S. (2002), "*Küreselleşen Muhasebede Standartlaşma ve Türkiye Muhasebe Standartları Kurulu*", Mali Çözüm Dergisi, Sayı 59, 73-81.
- Çankaya, F. (2007), "*Uluslararası Muhasebe Uyumunun Ölçülmesine Yönelik Bir Uygulama: Rusya, Çin Ve Türkiye Karşılaştırması*", ZKÜ Sosyal Bilimler Dergisi, Cilt 3, Sayı 6, 127-148.
- Demirci, Ş. D. & Önal, B. (2016), "*Uluslararası Finansal Raporlama Standartlarının Kapsamı: Seçilmiş 7 Sektör Bazında İnceleme*", Uluslararası Yönetim İktisat ve İşletme Dergisi, ICAFR 16 Özel Sayısı, 589-603.
- Epstein, B. J. & Mirza, A. A. (1999), *Interprationand Application of International Accounting*



Standarts 2000. Somerset, New Jersey: John Wiley&Sons, Inc.

Kargı, V. (2016), “*GlobalizationAndAudit*”, 2nd International Annual Meeting Of Sosyo Ekonomi Society, 2016, 2, 274-275.

Kayabaşı, A. &Demireli, E. & Yıldırım, M. (2007), *Küreselleşme Sürecinde İşletmelerin Finansal Kararlarını Etkileyen Temel Dinamiklere Totaliter Bir Yaklaşım*” Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi Cilt 9, Sayı: 3, 19-36.

Kocamaz, H. (2012), “*Uluslararası Muhasebe Standartlarının Dünyada Ve Türkiye’de Oluşum Ve Gelişim Süreci*,” *Kahramanmaraş Sütçü İmam Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, Cilt 2, Sayı 2, 105-120.

Korkmaz, T. & Temel, H. & Birkan, E. (2007), “*Uluslararası Muhasebe Standartları ve Kobi’lere Etkileri*”, *Muhasebe ve Finansman Dergisi*, 36, 96–105.

Masca M. (1998), “*Küreselleşmenin Ekonomik Yönden Analizi*”, *Yönetim ve Ekonomi*, Sayı:4, s. 357-376.

Wiecek, I. M. &Young, N. M. (2010), *International GAAP Basics U.S. Edition*. Hoboken, New Jersey: Wiley&SonsInc.

Uzay, Ş. (2007), “*Küreselleşmenin İşletmelerde Muhasebe ve Denetim Uygulamalarına Etkisi*”, *Türkiye’nin Jeoekonomisi ve Jeopolitikası-Türkiye Geleceğin Neresinde*, Editörler: Nejat Doğan, Ferit Kula, Mehmet Öcal, Nobel Yayınevi, 155-181.

# **An Examination of The Relationship Between Internet Addiction And Parenting Attitudes in Adolescents**

Utku Beyazit, Gozde Cinar, Yesim Yurdakul, Aynur Butun Ayhan

Internet addiction is defined as a psychopathological computer use which refers to obsession with online activities (Weinstein and Lejoyeux, 2010). The user spends excessive amount of time in computer use such as web surfing, email/text messaging, social networking, online gaming and gambling (Tsai et al., 2009; Hahn et al., 2017). Internet addiction is argued to be mainly characterized by a loss of control over the computer using behavior, excessive preoccupation with the Internet and computer use, withdrawal from social life, experiencing anxiety and depression where internet is not available (Young, 2004; Block, 2008; Leung and Lee, 2011).

With regards to prevalence of Internet addiction in adolescents, estimates of Internet addiction in different countries indicate a wide variety such as 1.6 % in South Korea (Kim et al., 2006), 3.1% in Greece (Stavropoulos, 2013), 3% in Netherlands (Kuss et al., 2013), 4% in China (Ni et al., 2009), 6% in US, (Weinstein and Lejoyeux, 2010), and 18.3% in United Kingdom (Niemz et al., 2005). According to a study conducted in 2012 in Turkey, the prevalence of internet addiction among high school students years was found to be 19.78%. It is indicated that internet addiction among males is more than in females (Gökçeşlan and Günbatar, 2012).

As with the etiology, Internet addiction has mostly been associated with psychological factors such as impulsivity and neuroticism in adolescents. According to many findings in the literature, internet addiction appears as a mental health problem for adolescents (Flisher, 2010). According to the findings of a number of studies, in adolescents, internet addiction has been reported to be comorbid with depression and sleep disturbances, suicidal thinking, attention-deficit hyperactivity disorder, social anxiety, psychosis, aggression, substance and problematic alcohol use (Kim et al., 2006; Tsai et al., 2009; Aral et al., 2011; Kuss et al., 2013, Hahn et al., 2017). Apart from psychiatric comorbidity internet addiction was found to be associated with well being, personality characteristics, poor social relationships, and lifestyle habits. As with the consequences, it has been shown that internet addiction led directly to social isolation, depression, familial discord, divorce, academic failure, financial indebtedness, and job loss. It is thought that all these findings may suggest a relationship between a poor social support system and Internet addiction. It is stressed out that an excessive and uncontrollable occupation with online activities is stress provoking, time consuming, resulting in social withdrawal, a decrease in academic performance and affect psychosocial development of adolescents negatively (Young, 2004; Bütün Ayhan et al., 2009; Flisher, 2010; Stavropoulos, 2013).

The most important social aspect of an adolescents' life is the family. Unfavorable parenting such as rejection, lack of emotional warmth, disturbed family functioning are argued to be among the most prominent risk factors of psychopathologies in adolescents (Kalaitzaki and Birtchnell, 2014). An adolescent's relationship with their parents and the parents' attitudes towards the adolescent play important role for the overall development of the child. It is stressed out that parents' responsiveness, emotional warmth and sharing of positive feelings is particularly important for the psychosocial development (DeHart et al., 2004; Parke and Gauvain, 2009).

According to the typology of Baumrind, parents who adhere authoritarian child rearing styles are unresponsive, rejecting, and rigid in controlling behavior which may result in frustration, aggression and behavioral problems in children. On the other hand, warm and authoritative parenting is suggested to foster particularly positive outcomes in adolescents' development. It is argued that adolescents who receive authoritative parenting tend to be more psychologically mature, have stronger orientation toward academic achievement, and do better in school (Valcke et al., 2010; Matejevic et al., 2014). It is suggested that the children whose parents respond to their needs positively, develop positive social skills such as effective interpersonal relationships, decision-making and have a stronger

identity development (Slicker, et al., 2005; Mas and Wolfe, 2007). Another parenting style is permissive parenting which refers to a child rearing style that the parents do not set limits or demand appropriately behavior of their children. Although these parents are highly involved with their children and are warm, they have no control on them and let their children do what they want (Rosen et al., 2008; Santrock, 2014). Such parenting attitude is argued to result in impulsivity and low self-control (Dehart et al., 2004; Hesari & Hejazi, 2011)

The literature discussed above indicates that the child rearing style that the parents adhere have an effect on psychological development, and hence the psychopathologies, in adolescence. Internet addiction, or psychopathological internet use in other words, is a current topic. As with the etiology of this phenomenon, it has mostly been associated with psychological factors such as impulsivity in adolescents. However, the affect of problematic family relations and the psychosocial characteristics of the parenting remains obscure. Within this context, the relationship between internet addiction in adolescents and parenting attitudes is examined in this study.

## **Methodology**

### **Participants**

The sample group of the study was comprised of 344 adolescents attending to three different secondary high schools in İstanbul. In this study, 81,1% (n=279) of the adolescents were female and 18,9% (n=65) of them were male. As with the ages of the adolescents, 64,5% (n=222) of them were between 14-16 years old, 31,1% (n=107) of them were between 17-18 years old and 4,4% (n=15) of them were 19 years old and older. As with the grades, 33,7% (n=116) of them attended ninth grade, 32 % (n=110) of them attended tenth grade, 21,8% (n=75) of them attended eleventh grade and 12,5% (n=43) of them attended twelfth grade.

### **Instruments**

In the study, "Individual Information Form", developed by the authors, was used for the collection of information data about participants, "Internet Addiction Scale" was used to assess Internet addiction in adolescents and "Parenting Attitudes Scale" was used to assess the parental attitudes.

### **Internet Addiction Scale**

Internet Addiction Scale is developed by Güneş and Kayri (2010) for the purpose of assessing Internet addiction. The scale is comprised of 35, five point likert items. The lowest possible score is 35 whereas the highest possible score is 175. The high scores indicate the high level of Internet addiction. When the scale is administered in a sample group, initially the mean and the standart deviation of the sample is calculated. The individual scores higher then the summation of mean and standart deviation indicate Internet addiction ( $\text{Internet Addiction} > \text{Mean} + \text{Standart Deviation}$ ). The Cronbach alpha coefficient of the scale was found to be .944 by Güneş and Kayri (2010). The Cronbcah alpha coefficient of Internet Addiction Scale for this study was found to be .945.

### **Parents Attitude Scale**

Parents Attitude Scale is developed by Küçüküran in 2005. The scale can be administered to children and adolescents to assess how they pereceive their parents' attitudes towards them. The scale is comprised of 30, five point likert items. The scale is consisted of two subscales assessing responsible/accepting parenting and authoritarian/controlling. Each of the subscales are consisted of 15 items. The lowest possible score is 15 whereas the highest possible score is 75 in both subscales. The high scores indicate the parental attitudes perceived by the children and the adolesecents. The Cronbach alpha coefficient of the scale was found to be .88 for responsible/accepting parenting and .85 for authoritarian/controlling parenting (Küçüküran, 2005). In this study, Cronbach alpha coefficient was found to be for responsible/accepting parenting and .92 for authoritarian/controlling parenting.

### Data Collection and Data Analysis

Before starting to collect data, consent of the authors of the instruments used in the study were provided. The administrations of the schools were given information and the permissions of the school directors were provided. In each classroom, the students were given information about the study and they were explained that they were free to admit or decline participating or free to withdraw whenever they want. The students who were willing to participate in the study were administered the questionnaire. A preliminary analysis was performed in order to test the normality of the data collected. According to the results of the normality test, the data related to the scores of the scales used in the study was found to be non-parametric. Hence, Spearman Correlation test was used in the statistical analysis of the data collected (Field, 2009; Balci, 2015). The data was analyzed using Statistical Package for Social Sciences 21(SPSS).

### Results

The following Table 1 shows the arithmetic mean and the standard deviations of the scores of Internet Addiction Scale and Parenting Attitudes Scale and the Table 2 shows the Spearman correlation coefficients between the scores of Internet Addiction Scale and Parenting Attitudes Scale

**Table 1. The Arithmetic Mean and The Standard Deviations of The Scores of Internet Addiction Scale And Parenting Attitudes Scale**

Scores		N	Minimum	Maximum	$\bar{X}$	ss
<b>Internet Addiction Scale</b>		344	35	175	82,43	26,88
<b>Parenting Attitudes Scale</b>	Authoritarian/Controlling	344	15	75	55,30	14,37
	Responsible/Accepting	344	15	75	41,19	16,17

The Table 1 shows the arithmetic mean and the standard deviations of the scores of Internet Addiction Scale and The Parenting Attitudes Scale. According to the findings, the scores of Internet Addiction Scale vary between 35-175 and the mean score is  $82,43 \pm 26,88$ . It was found that 47 (13,7%) of the adolescents have Internet addiction as they scored higher than the summation of the mean and the standard deviation. The score of the adolescents who have Internet addiction vary between 110 and 175. Their mean score was found to be  $128,53 \pm 17,67$ . In regards with the Parenting Attitudes Scale, the authoritarian/controlling parenting scores vary between 15-75 and the mean score is  $55,30 \pm 14,37$ . The responsible/accepting parenting scores vary between 15-75, the mean score is  $41,19 \pm 16,17$ .

**Table 2. The Spearman Correlation Coefficients Between The Scores Of Internet Addiction Scale And Parenting Attitudes Scale**

Internet Addiction Scale	Parenting Attitudes Scale	N	r	p
	Authoritarian/Controlling	344	,211	0,000**
	Responsible/Accepting	344	-,234	0,000**

\*\*p<0,01

The Table 2 related to the Spearman correlation coefficients between The scores of Internet Addiction Scale And Parenting Attitudes Scale, reveals that there is a significant positive correlation between the Internet addiction and authoritarian/controlling parenting ( $r=0,211$ ,  $p<0,01$ ) whereas there is a significant negative correlation between the Internet addiction and responsible/accepting parenting ( $r=-0,234$ ,  $p<0,01$ ).

## Discussion

In this study, the relationship between Internet addiction in adolescents and parenting attitudes is examined. In regards with the descriptive analysis of the scores of the scales used in the study, it is found that 13,7% of the 344 adolescents have Internet addiction. According to the findings, there is a significant positive correlation between the Internet addiction and authoritarian/controlling parenting and there is a significant negative correlation between the Internet addiction and responsible/accepting parenting. The finding that parental control and parental warmth is consistent with results from previous studies. In a study conducted by Valcke et al. (2010), it was found that the children raised by parents who adopt permissive parenting style have higher levels of Internet use where as lowest level is observed when parents adopt an authoritarian parenting style. In another study conducted by Huang et al. (2010), it was found out that the adolescents with Internet addiction reported both maternal and paternal rearing practices as lacking in emotional warmth, being over-involved, rejecting, and punitive. The parents who are uninvolved or indulgent, are argued less likely to set limits on Internet use (Rosen et al., 2008). In the study, adolescents who have Internet addiction consistently rated parental rearing behaviors as being authoritarian, punitive, and lacking in responsiveness. In another study conducted by Kalaitzaki and Birtchnell (2014), it was found out that father's affectionless controlling attitude has an effect on Internet addiction of children.

It is stressed out that the parenting styles significantly affect child Internet usage (Valcke et al., 2010). The findings of this study suggest that the influences of parenting style and family function are important factors in the development of Internet addiction. It is thought that parental controlling and authoritarian behaviors can play a role in the development and maintenance of Internet addiction in adolescents as negative parental rearing including high rejection, high overprotection, low emotional warmth is associated with increased risk for all types of addictions during adolescence. Parents of children with Internet addiction are thought to be psychologically controlling and overly protective, exercising excessive regulation over their children's day-to-day routines and demonstrating intrusiveness. On the other hand, harsh parental attitudes are argued to be associated with loneliness, low self esteem and social withdrawal in adolescents. The nature of the parent-child relationship is suggested to be especially salient for youngsters at risk of addiction, if their parents maintain a harsh and punitive relationship style. The transition from adolescence to young adulthood for them may thus be a precarious juncture in developmental terms.

This research has a number of implications for prevention of Internet addiction in adolescents. In terms of prevention, the adolescents who are at risk of Internet addiction should be identified at schools. Their parents may be approached by teachers and educated about the problems their Internet usage may cause. Internet use may involve many risks for young people such abuse and cyberbullying. The importance of parental control comes to the forefront when adolescents are leaning towards risks of Internet use when using communications and informatics technologies. Parents who do not have knowledge about technology are unaware of the benefits for their children during Internet use, risks they might face, and fail to provide support to them to cope with uncomfortable situations that may arise on Internet. With regards to prevention of these risks, raising awareness and providing education for both adolescents and their parents appear as key themes. Internet attitude and Internet usage, intervention programs could centre on the conceptions, abilities, and usage by parents.

There are several limitations of this study. Internet addiction is a diagnostic concept which cannot be identified by a self report tool solely. Individual interviews should be made to confirm the diagnoses of Internet addiction. Secondly, the parental attitudes are found to be risk factors as with Internet addiction but the interaction of parental attitudes with other characteristics of the family such as socioeconomic status should be searched. Finally, a convenience sample was used which limits the generalizability of findings. The research should be replicated in a wider sample to increase the external validity of the findings.

## References

- Aral, N., Bütün Ayhan, A., Şimşek, Ş. (2011). Investigation on the Computer Attitudes of Adolescents. III. International Congress of Educational Research. "Life-Long Learning and Informal Education", 4-7 May 2011, III. International Congress of Educational Research Congress Book, 143-152, Kyrenia, Cyprus.
- Balcı, A. (2015 ). Sosyal Bilimlerde Araştırma Yöntem Teknik ve İlkeler. (11. Edition). Ankara: Pegem Akademi.
- Bütün Ayhan, A., Şimşek, Ş., Aral, N. (2009). Ergenlerin Bilgisayar ve İnternet Kullanma Durumlarının İncelenmesi. "Uluslararası Katılımlı II. Ulusal Çocuk Gelişimi ve Eğitimi Kongresi" , 7-9 Ekim 2009, Bildiri Kitabı, 292-298, Ankara.
- Block, J. J. (2008). Issues for DSM-V: Internet Addiction. *Am J Psychiatry*, **165**(3): 306-307.
- DeHart, G. B., Sroufe, L. A., Cooper, R. G. (2004). Child Development, Its Nature and Course. New York: Mc Graw Hill.
- Field, A. (2009). Discovering Statistics Using SPSS. London: Sage Publications, p.: 148.
- Flisher, C. (2010). Getting plugged in: An overview of Internet addiction. *Journal of Paediatrics and Child Health*, 46: 557–559.
- Gökçearslan, Ş., Günbatır, M. S. (2012). Internet Addiction In High School Students. *Eğitim Teknolojisi Kuram ve Uygulama*, **2**(2):10-22.
- Günüç, S., Kayrı, M. (2010). The profile of internet dependency in Turkey and development of Internet Addiction Scale: Study of validity & reliability. *Hacettepe University Journal of Education*, **39**: 220-232.
- Hahn, E., Reuter, M., Spinath, F. M., Montag, C. M. (2017). Internet addiction and its facets: The role of genetics and the relation to self-directedness. *Addictive Behaviors*, **65**: 137–146.
- Hesari, N. K., Hejazi, E. (2011). The Mediating role of self-esteem in the relationship between the authoritative parenting style and aggression. *Procedia - Social and Behavioral Sciences*, **30**: 1724 – 1730.
- Huang, X., Huimin Z., Mengchen L., Jinan W., Ying Z., Ran T. (2010). Mental health, personality, and parental rearing styles of adolescents with Internet addiction disorder. *Cyberpsychol Behav Soc Netw*, 13(4):401-406.
- Kalaitzaki, A. E., Birtchnell, J. (2014). The impact of early parenting bonding on young adults' Internet addiction, through the mediation effects of negative relating to others and sadness. *Addictive Behaviors*, 39: 733–736.
- Kim, K., Ryub, E., Chonb, M., Yeun, E., Choic, S., Seo, J. S., Nam, B. (2006). Internet addiction in Korean adolescents and its relation to depression and suicidal ideation: A questionnaire survey. *International Journal of Nursing Studies*, **43**: 185–192.
- Kuss, D. J., Griffiths, W. D., Binder, J. F. (2013). Internet addiction in students: Prevalence and risk factors. *Computers in Human Behavior*, **29**: 959–966.
- Küçükturan, G. (2005). Parental Attitude Scale. *Eurasian Journal of Educational Research*, **19**: 238-250.
- Leung, L., Lee, P. S. N. (2011). The influences of information literacy, internet addiction and parenting styles on internet risks. *New Media & Society*, **14**(1): 117–136.
- Mash, E., Wolfe, D.A. (2007). Abnormal Child Psychology. Belmont CA: Wadsworth.
- Matejevic, M., Todorovic, J., Jovanovic, D. (2014). Patterns of Family Functioning and Dimensions of Parenting Style. *Procedia - Social and Behavioral Sciences*, **141**: 431 – 437.
- Ni, X., Yan, H., Chen, S., Liu, Z. (2009). Factors Influencing Internet Addiction in a Sample of Freshmen University Students in China. *CyberPsychology & Behavior*, **12**(3): 327-330.
- Niem, K., Griffiths, M., Banyard, P. (2005). Prevalence of Pathological Internet Use among University Students and Correlations with Self-Esteem, the General Health Questionnaire (GHQ), and Disinhibition. *CyberPsychology & Behavior*, **8**(6): 562-570.
- Parke, R. D., Gauvain, M. (2009). Child Psychology. New York: McGraw Hill.
- Rosen, L. D., Cheever, N. A., Carrier, L. M. (2008). The association of parenting style and child age with parental limit setting and adolescent MySpace behavior. *Journal of Applied Developmental Psychology*, **29**: 459–471.

- Santrock, J. W. (2014). *Life-Span Development*. U.S.A.: Mc Graw Hill.
- Slicker, E. K., Picklesimer, B. K., Guzak, A. K., Fuller, D. K. (2005). The Relationship of Parenting Style to Older Adolescent Life-Skills Development in the United States. *Nordic Journal of Youth Research*, **13**(3): 227-245.
- Stavropoulos, V., Alexandraki, K., Motti-Stefanidi, F. (2013). Recognizing internet addiction: Prevalence and relationship to academic achievement in adolescents enrolled in urban and rural Greek high schools. *Journal of Adolescence*, **36**: 565–576.
- Tsai, H. F., Cheng, S. H., Yeh, T. L., Shih, C., Chen, K. C., Yang, Y. C., Yang, K. (2009). The risk factors of Internet addiction—A survey of university freshmen. *Psychiatry Research*, **167**: 294–299.
- Weinstein, A., Lejoyeux, M. (2010). Internet Addiction or Excessive Internet Use. *The American Journal of Drug and Alcohol Abuse*, **36**: 277–283.
- Valcke, M., Bonte, S. M., De Wever, B., Rots, I. (2010). Internet parenting styles and the impact on Internet use of primary school children. *Computers & Education*, **55**: 454-464.
- Young, K. (2004). Internet Addiction A New Clinical Phenomenon and Its Consequences. *American Behavioral Scientist*, **48**(4): 402-415.